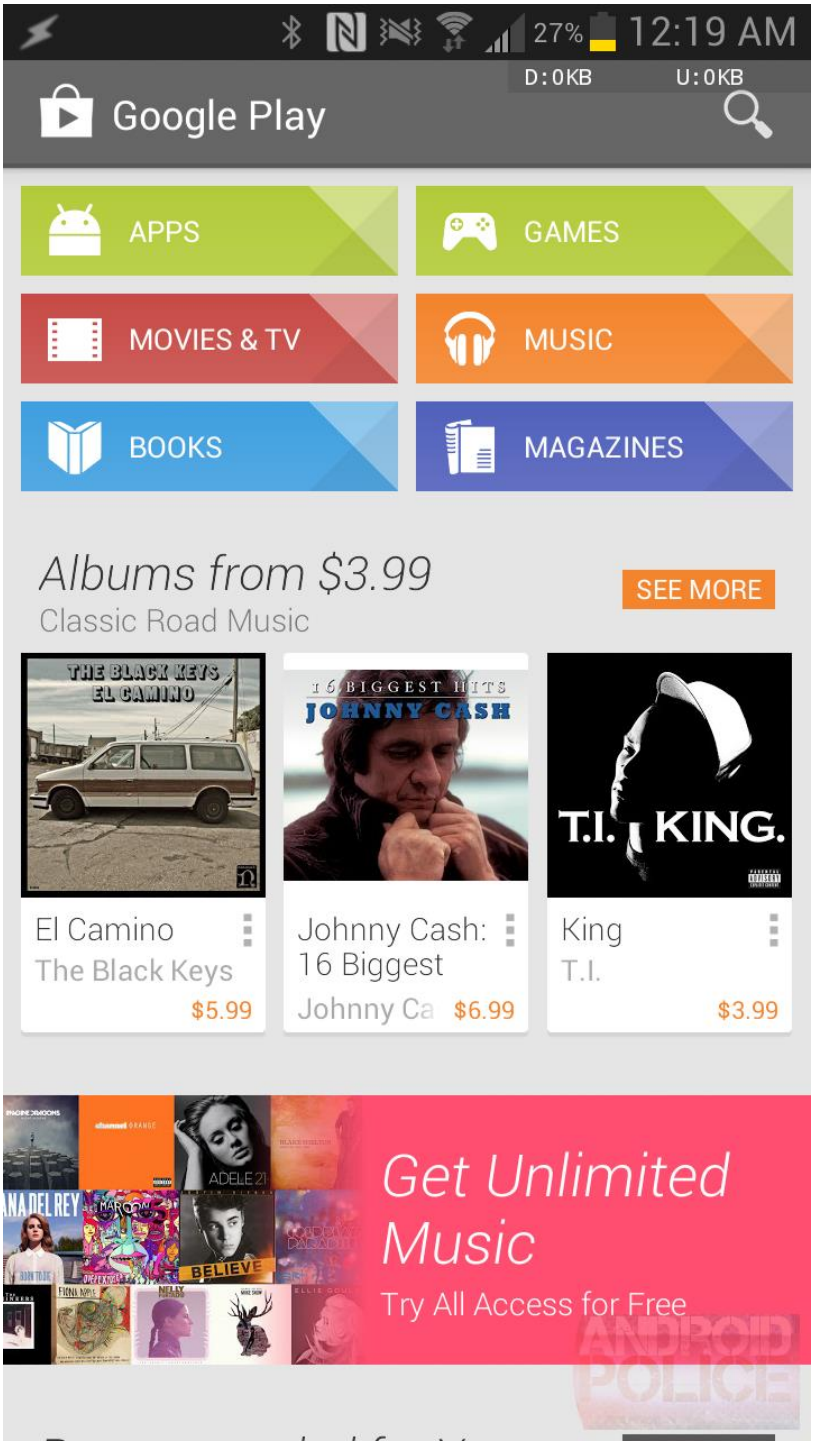
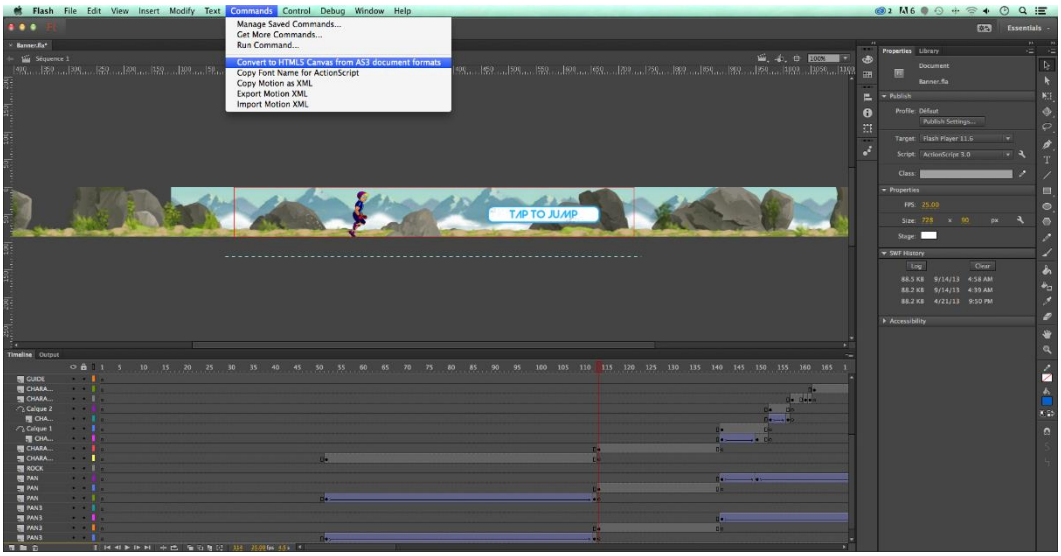
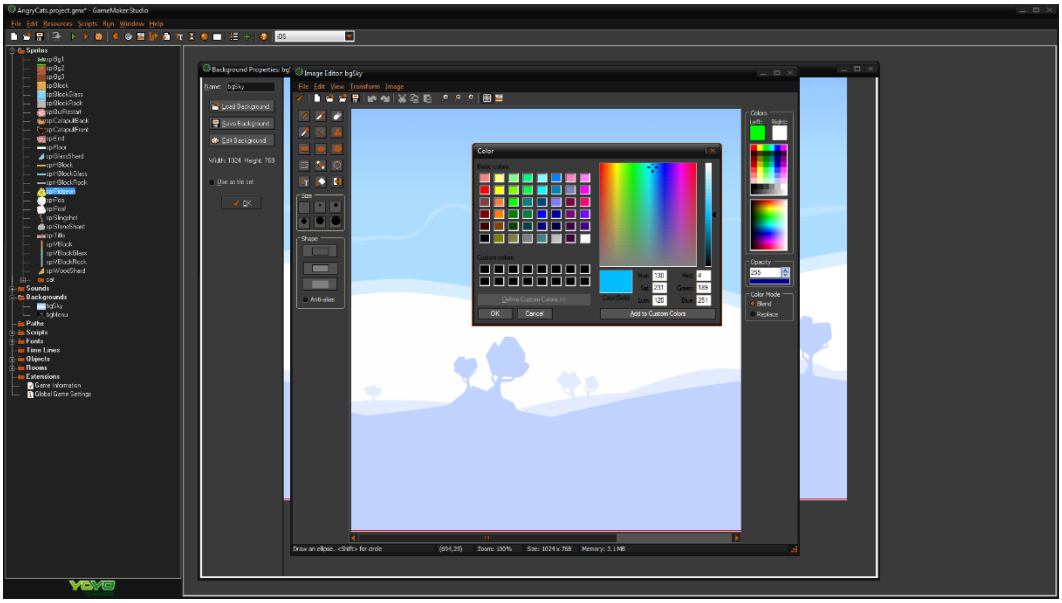
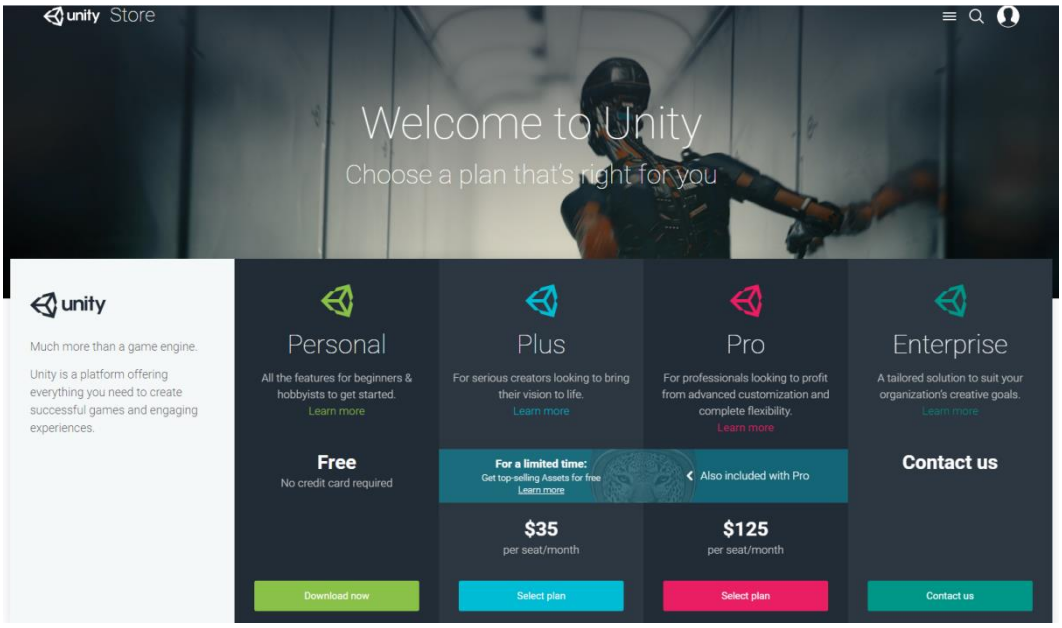
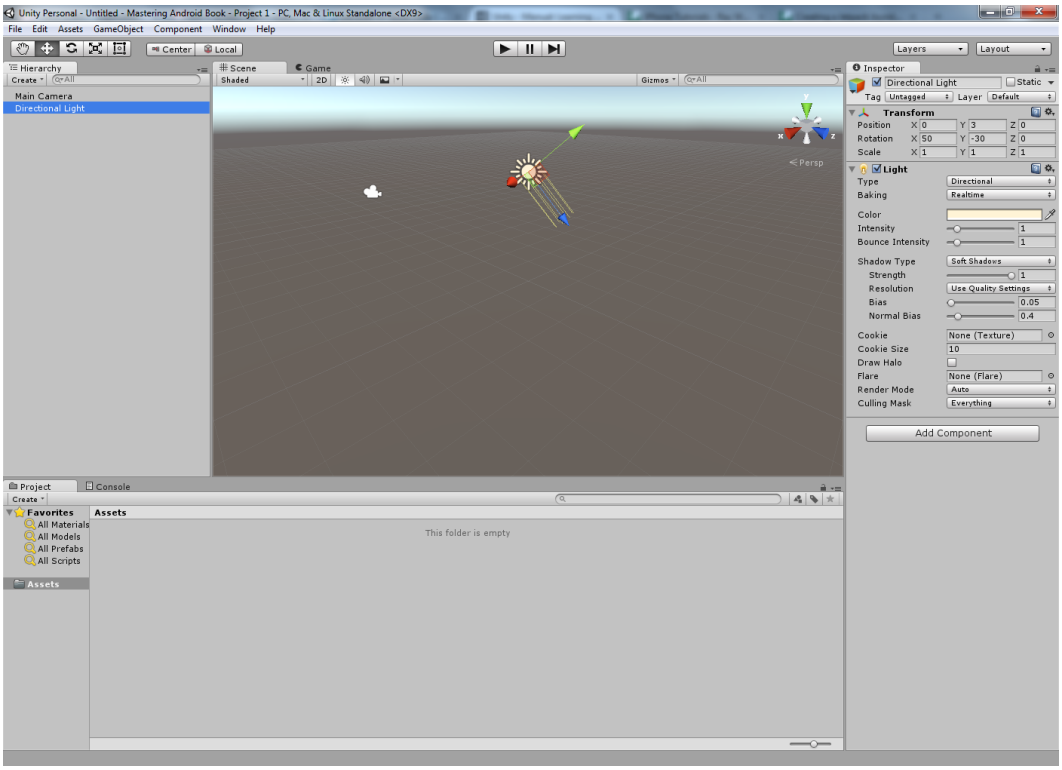
Chapter 1: Introduction to Android Game Development with Unity3D

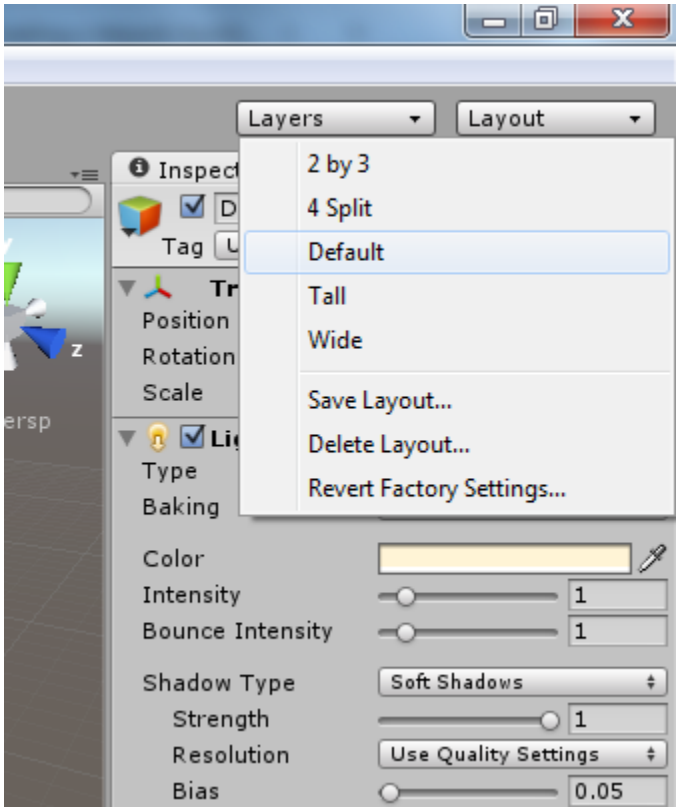

27% 12:19 AM
D:0KB U:0KB
Google Play
APPS
GAMES
MOVIES & TV
MUSIC
BOOKS
MAGAZINES
Albums from $3.99
Classic Road Music
SEE MORE
THE BLACK KEYS
EL CAMINO
El Camino
The Black Keys
$5.99
16 BIGGEST HITS
JOHNNY CASH
Johnny Cash:
16 Biggest
Johnny Ca
$6.99
T.I.
KING.
King
T.I.
$3.99
ADELE 21
BELIEVE
Get Unlimited
Music
Try All Access for Free

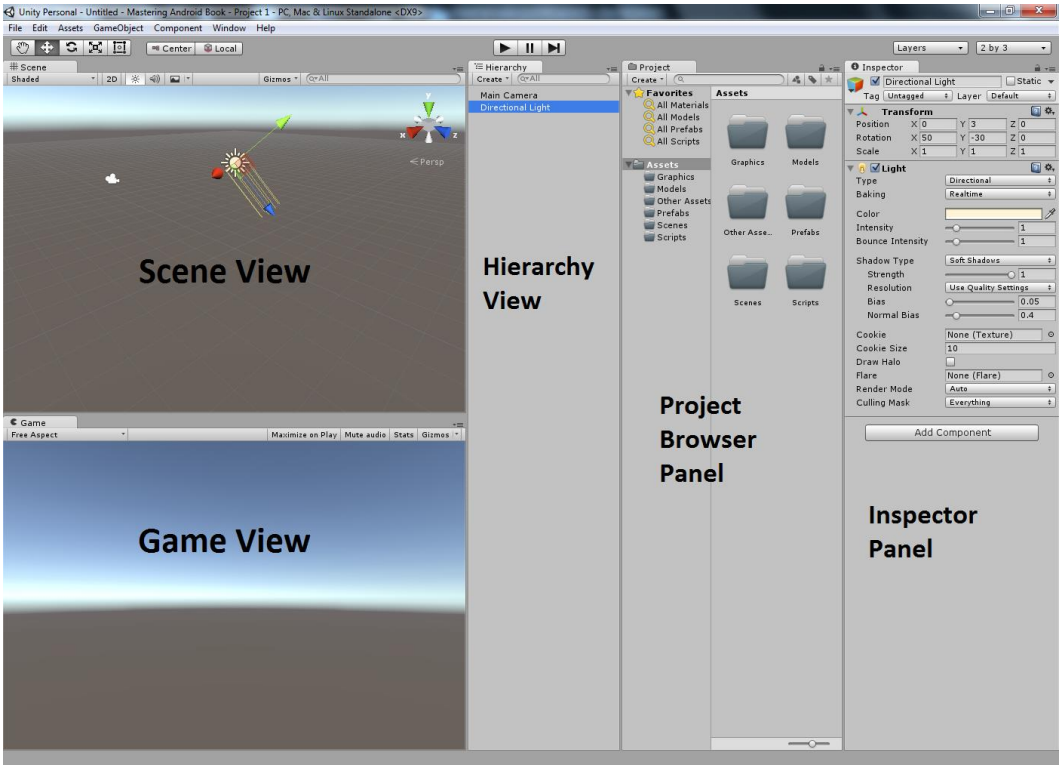

Flash File Edit View Insert Modify Text Commands Control Debug Window Help
Manage Saved Commands...
Get More Commands...
Run Command...
Convert to HTML5 Canvas from AS3 document formats
Copy Font Name for ActionScript
Copy Motion as XML
Export Motion XML
Import Motion XML
TAP TO JUMP

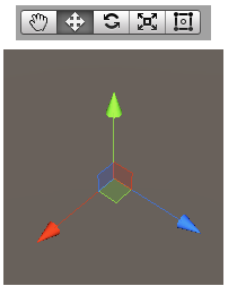



unity Store
Welcome to Unity
Choose a plan that's right for you
unity
Much more than a game engine.
Unity is a platform offering everything you need to create successful games and engaging experiences.
Personal
All the features for beginners & hobbyists to get started.
Learn more
Free
No credit card required
Download now
Plus
For serious creators looking to bring their vision to life.
Learn more
For a limited time:
Get top-selling Assets for free
Learn more
Also included with Pro
$35
per seat/month
Select plan
Pro
For professionals looking to profit from advanced customization and complete flexibility.
Learn more
$125
per seat/month
Select plan
Enterprise
A tailored solution to suit your organization's creative goals.
Learn more
Contact us
Contact us

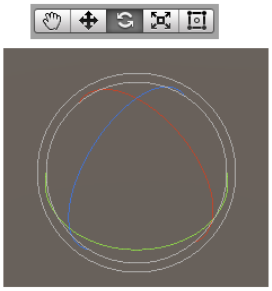

Unity Personal - Untitled - Mastering Android Book - Project 1 - PC, Mac & Linux Standalone <DX9>
File Edit Assets GameObject Component Window Help
Center Local
Layers Layout
Hierarchy
Create
Main Camera
Directional Light
Scene Game
Shaded 2D Gizmos
Persp
Inspector
Directional Light Static
Tag Untagged Layer Default
Transform
Position X 0 Y 3 Z 0
Rotation X 50 Y -30 Z 0
Scale X 1 Y 1 Z 1
Light
Type Directional
Baking Realtime
Color
Intensity 1
Bounce Intensity 1
Shadow Type Soft Shadows
Strength 1
Resolution Use Quality Settings
Bias 0.05
Normal Bias 0.4
Cookie None (Texture)
Cookie Size 10
Draw Halo
Flare None (Flare)
Render Mode Auto
Culling Mask Everything
Add Component
Project Console
Create
Favorites
All Materials
All Models
All Prefabs
All Scripts
Assets
Assets
This folder is empty


Layers
Layout
2 by 3
4 Split
Default
Tall
Wide
Save Layout...
Delete Layout...
Revert Factory Settings...
Tag
Position
Rotation
Scale
Type
Baking
Color
Intensity
1
Bounce Intensity
1
Shadow Type
Soft Shadows
Strength
1
Resolution
Use Quality Settings
Bias
0.05

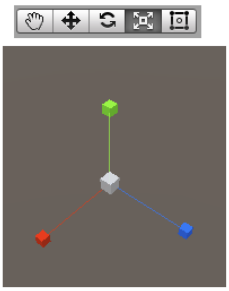




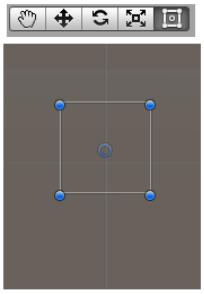
Move



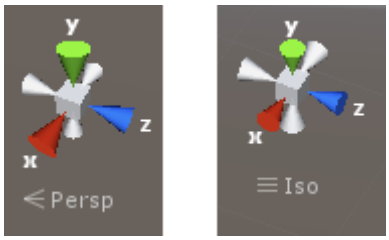
Rotate



Scale

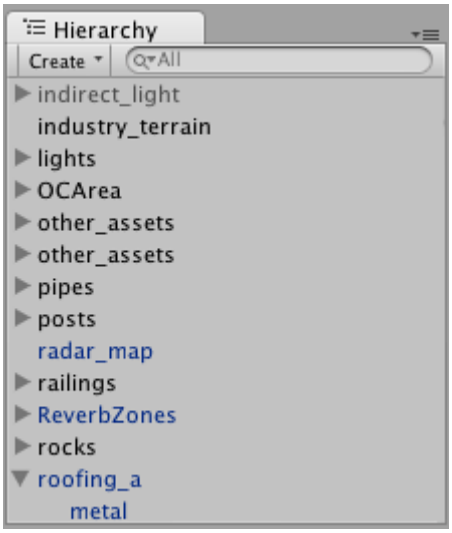


Rect Tool

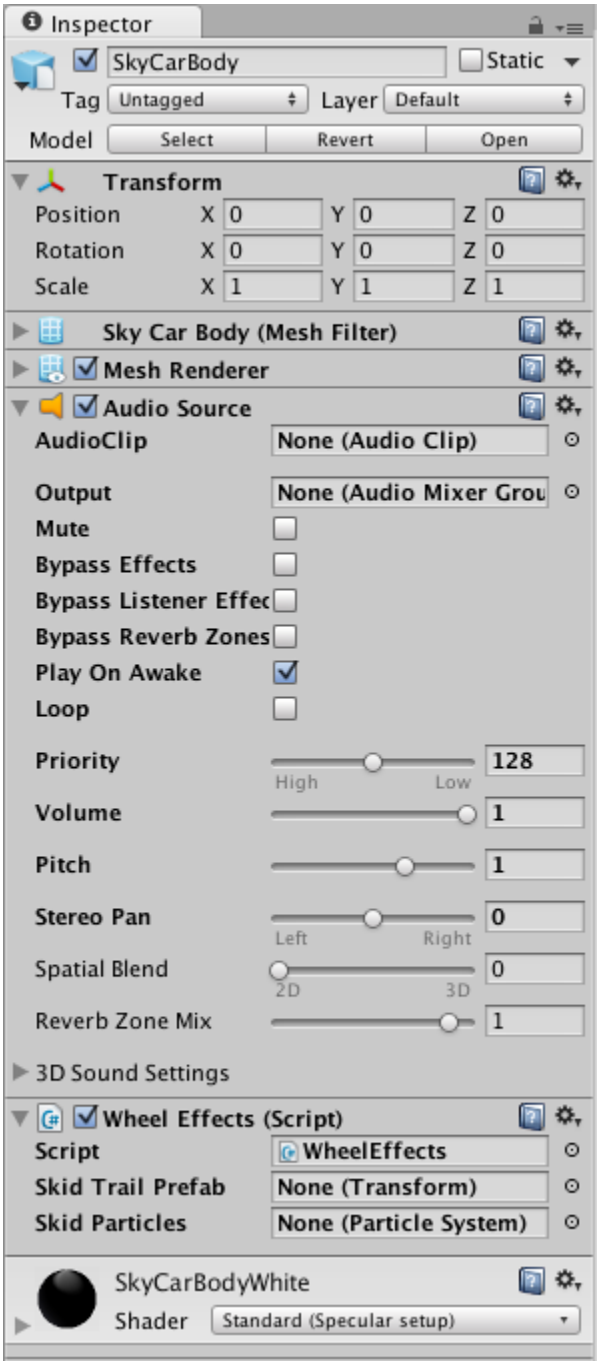

y
z
x
Persp
y
z
x
Iso

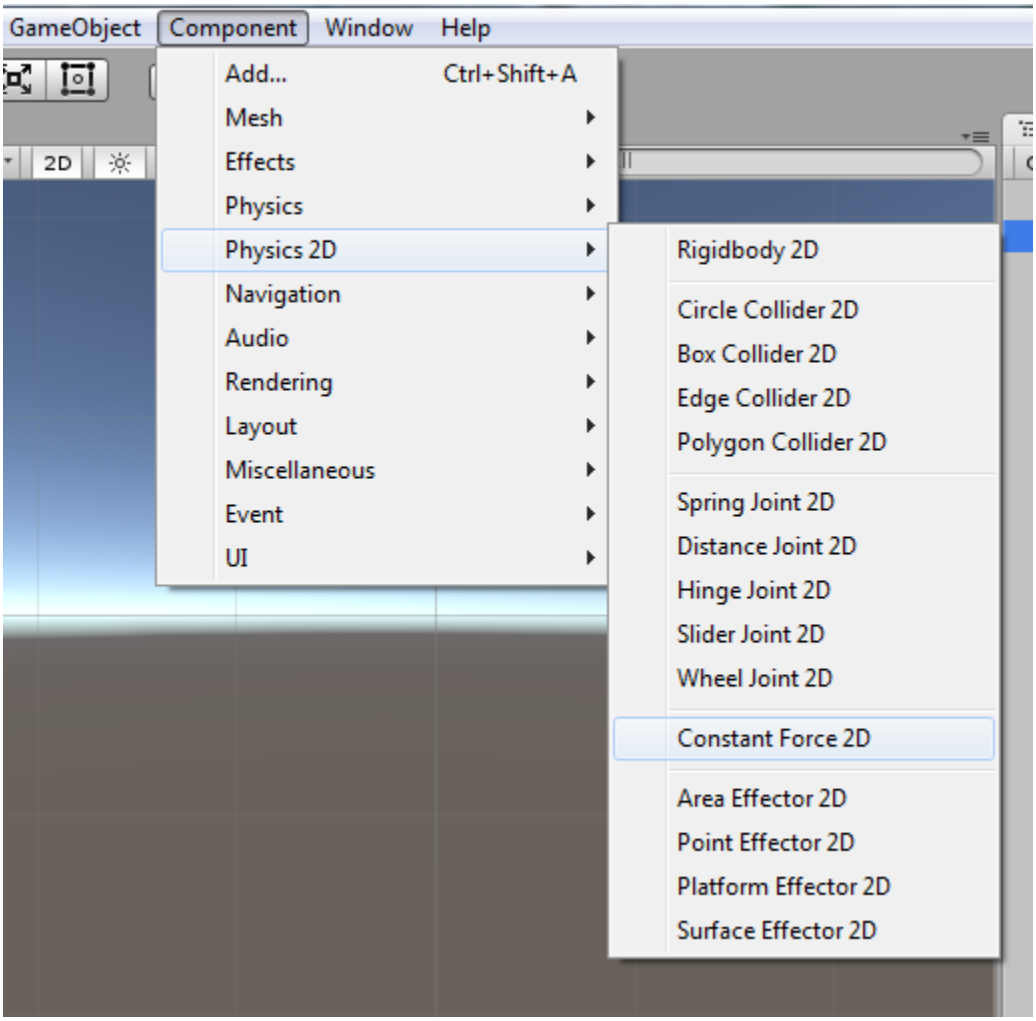
Scene
Shaded
2D
Gizmos
All

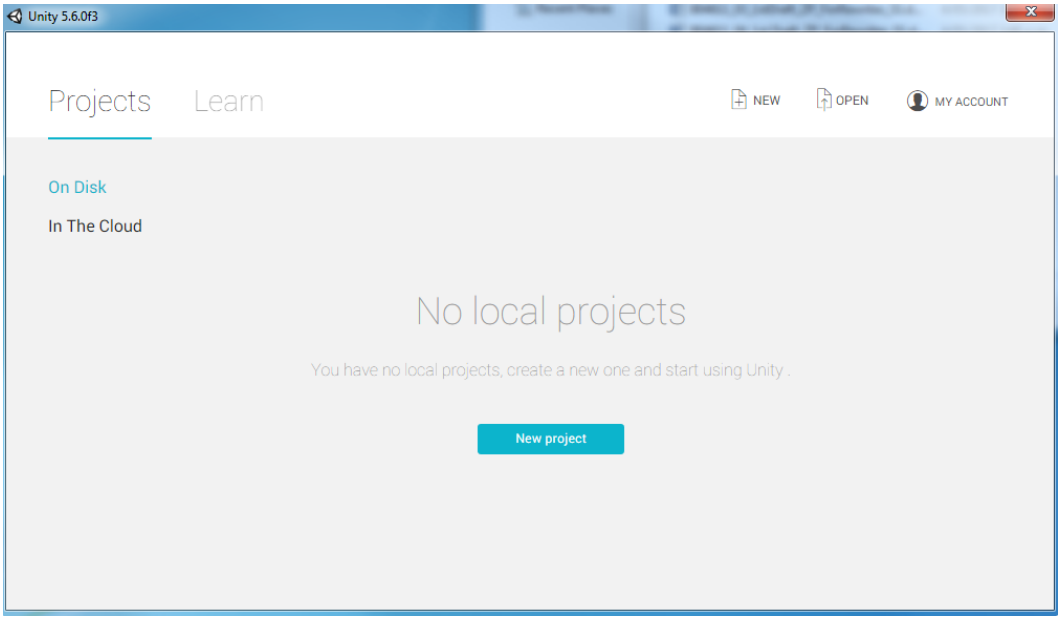
Game
Free Aspect
Maximize on Play
Mute audio
Stats
Gizmos

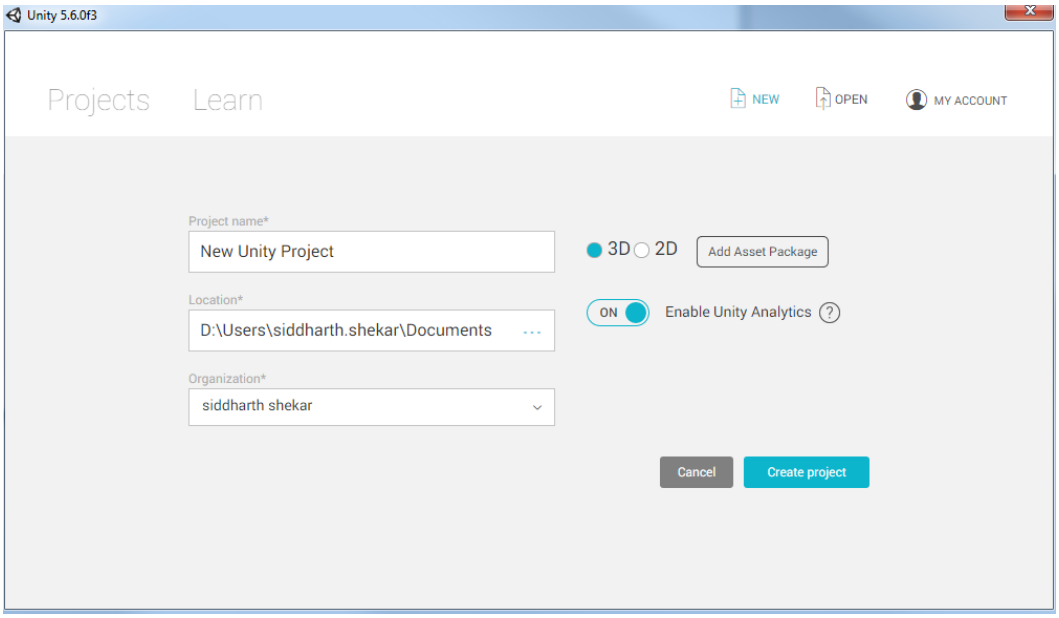

Hierarchy
Create
All
indirect_light
industry_terrain
lights
OCArea
other_assets
other_assets
pipes
posts
radar_map
railings
ReverbZones
rocks
roofing_a
metal

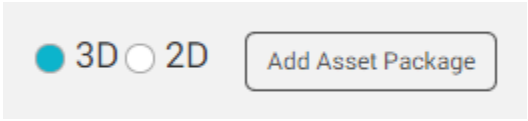
Project
Create
Favorites
All Materials
All Models
All Prefabs
All Scripts
Assets
AngryBots
Animations
Editor
Explosions
Fonts
Gizmos
Materials
Objects
Enemies
Environment
Doors
Furniture
Materials
LabEquipment
LargeDisplay
Assets ▸ Objects ▸ Enemies ▸
Babel
buzzer_bot
Materials
mech_bot
mech_bot@id...
mech_bot@tu...
mech_bot@tu...
mech_bot@wa...
mine_bot
mine_bot@aw...
mine_bot@ba...
mine_bot@fo...
mine_bot@left
mine_bot@ri...

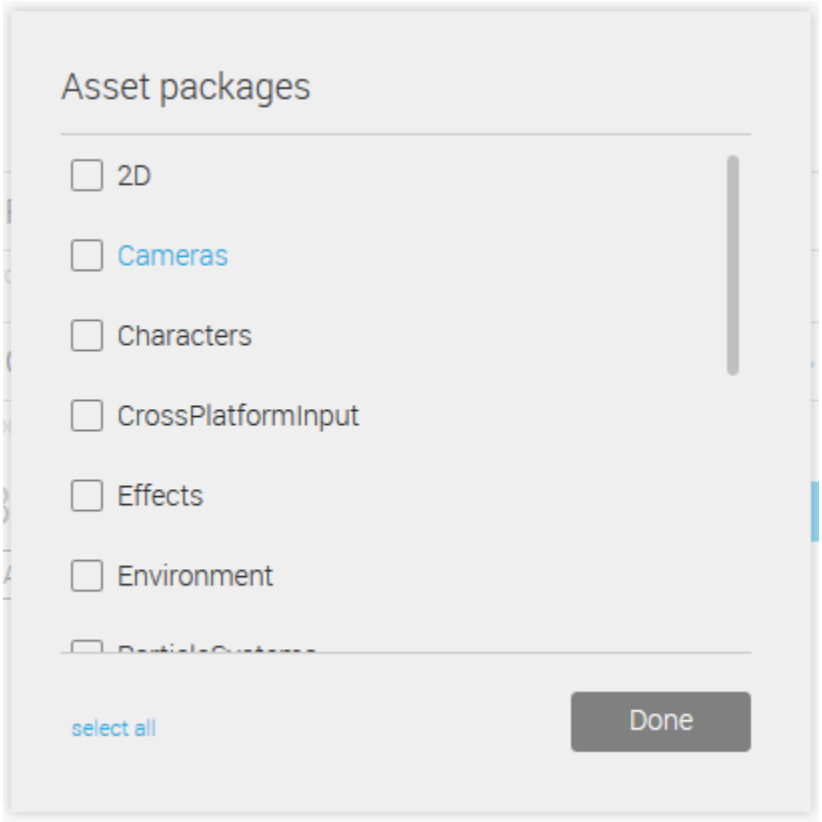

Inspector
SkyCarBody
Static
Tag
Untagged
Layer
Default
Model
Select
Revert
Open
Transform
Position
Rotation
Scale
Sky Car Body (Mesh Filter)
Mesh Renderer
Audio Source
AudioClip
None (Audio Clip)
Output
None (Audio Mixer Grou
Mute
Bypass Effects
Bypass Listener Effec
Bypass Reverb Zones
Play On Awake
Loop
Priority
High
Low
128
Volume
Pitch
Stereo Pan
Left
Right
Spatial Blend
2D
3D
Reverb Zone Mix
3D Sound Settings
Wheel Effects (Script)
Script
WheelEffects
Skid Trail Prefab
None (Transform)
Skid Particles
None (Particle System)
SkyCarBodyWhite
Shader
Standard (Specular setup)

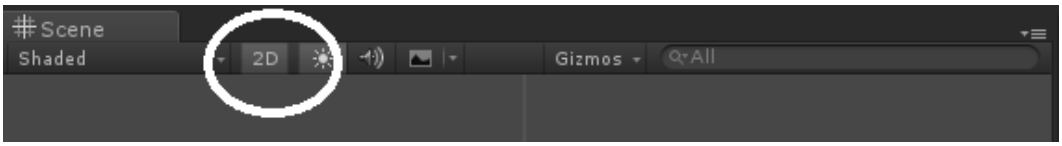

GameObject
Component
Window
Help
2D
Add... Ctrl+Shift+A
Mesh
Effects
Physics
Physics 2D
Navigation
Audio
Rendering
Layout
Miscellaneous
Event
UI
Rigidbody 2D
Circle Collider 2D
Box Collider 2D
Edge Collider 2D
Polygon Collider 2D
Spring Joint 2D
Distance Joint 2D
Hinge Joint 2D
Slider Joint 2D
Wheel Joint 2D
Constant Force 2D
Area Effector 2D
Point Effector 2D
Platform Effector 2D
Surface Effector 2D

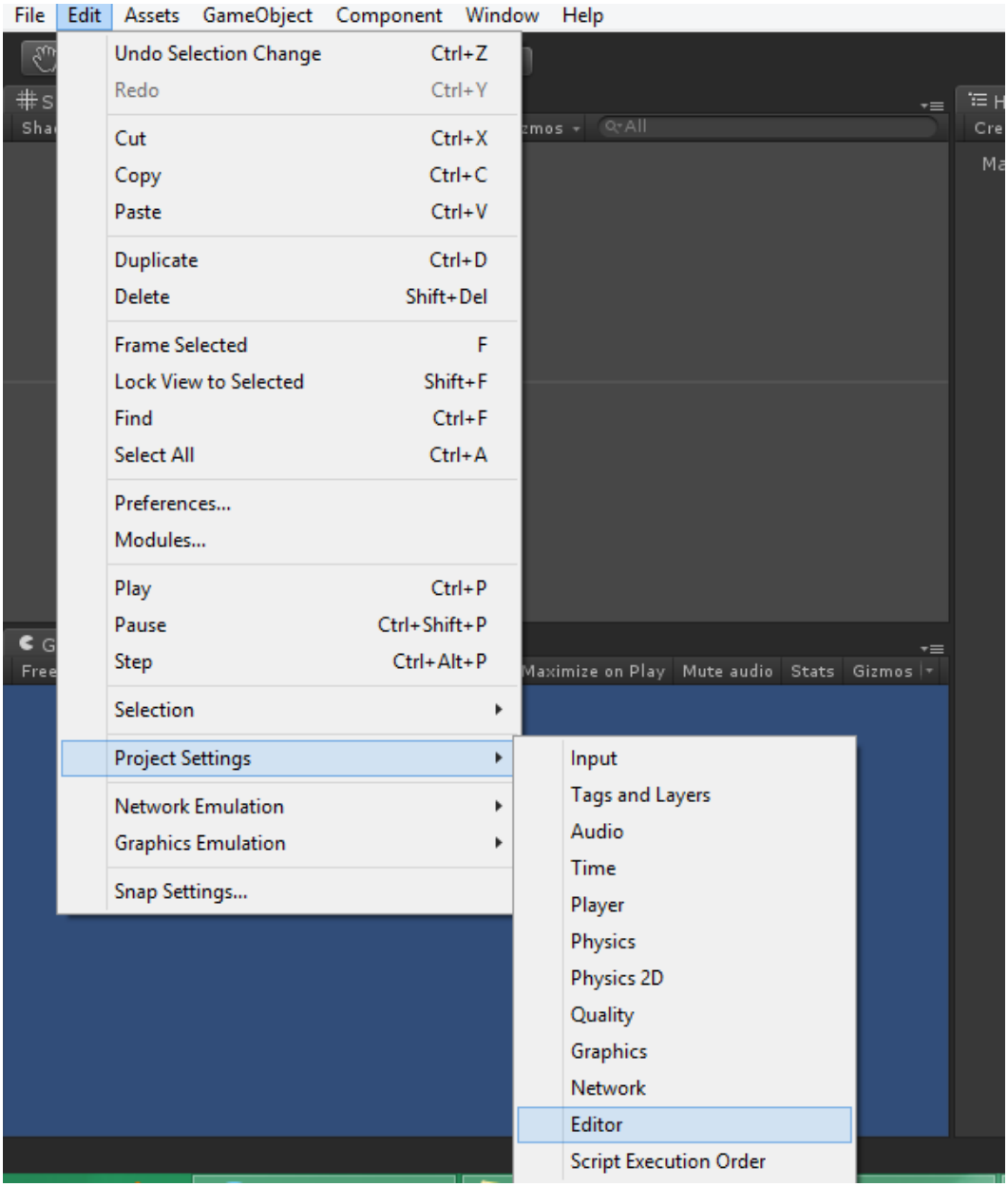

Unity 5.6.0f3
Projects
Learn
NEW
OPEN
MY ACCOUNT
On Disk
In The Cloud
No local projects
You have no local projects, create a new one and start using Unity .
New project

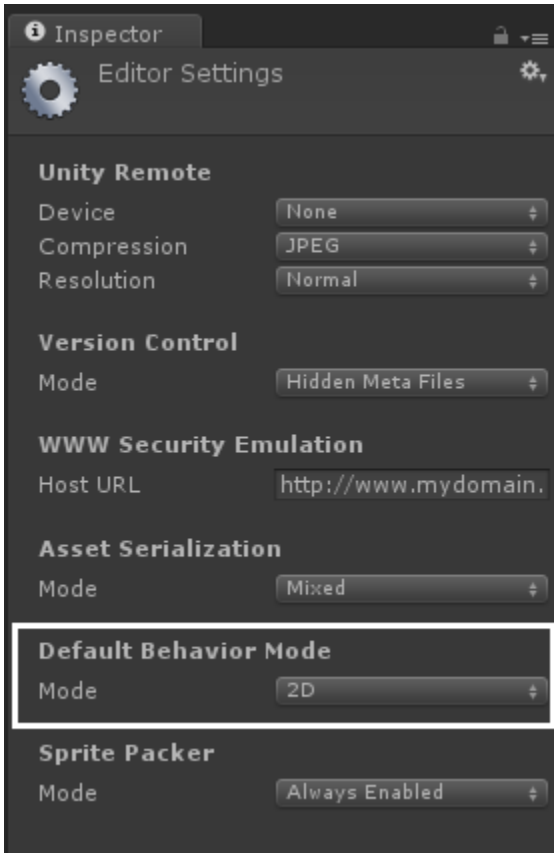

Unity 5.6.0f3
Projects
Learn
NEW
OPEN
MY ACCOUNT
Project name*
New Unity Project
3D
2D
Add Asset Package
Location*
D:\Users\siddharth.shekar\Documents
ON
Enable Unity Analytics
Organization*
siddharth shekar
Cancel
Create project

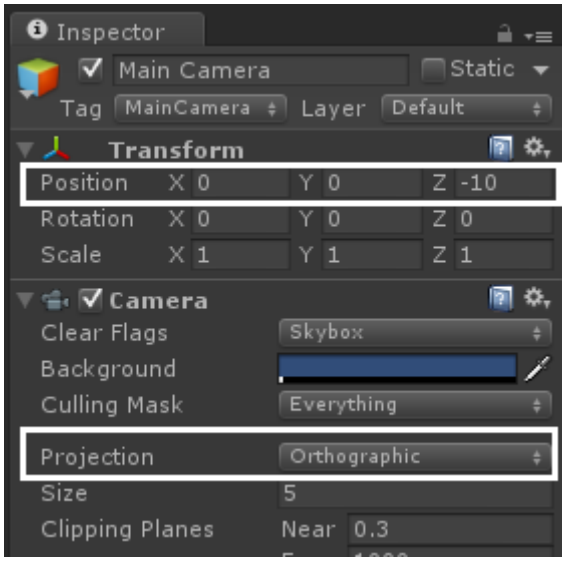

3D
2D
Add Asset Package

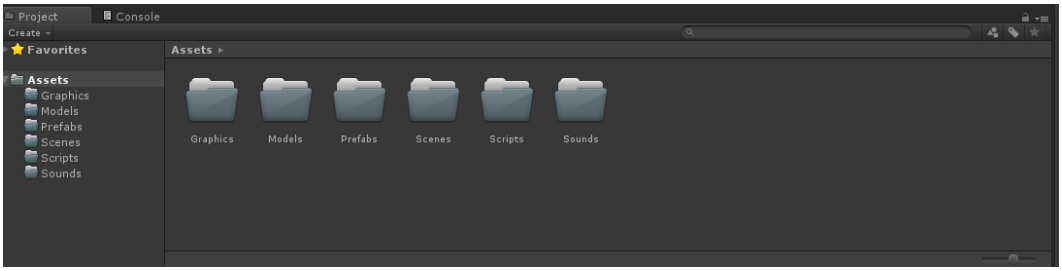

Asset packages
2D
Cameras
Characters
CrossPlatformInput
Effects
Environment
select all
Done

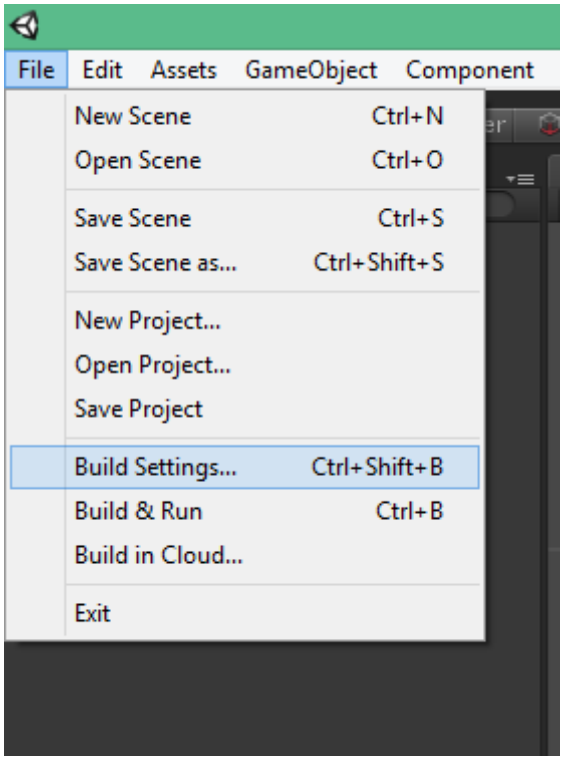

Scene
Shaded
2D
Gizmos
All

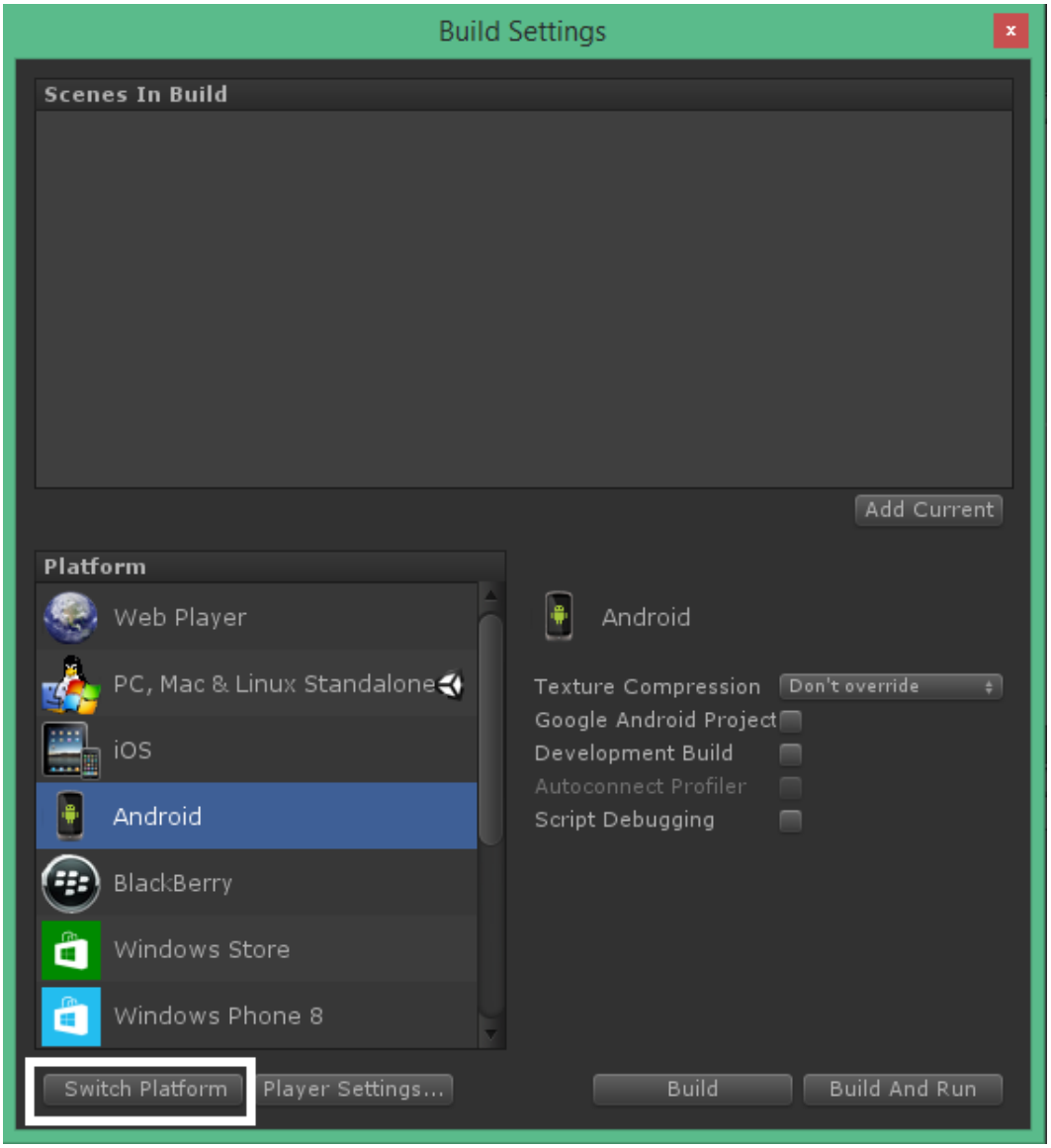

File
Edit
Assets
GameObject
Component
Window
Help
Undo Selection Change Ctrl+Z
Redo Ctrl+Y
Cut Ctrl+X
Copy Ctrl+C
Paste Ctrl+V
Duplicate Ctrl+D
Delete Shift+Del
Frame Selected F
Lock View to Selected Shift+F
Find Ctrl+F
Select All Ctrl+A
Preferences...
Modules...
Play Ctrl+P
Pause Ctrl+Shift+P
Step Ctrl+Alt+P
Selection
Project Settings
Network Emulation
Graphics Emulation
Snap Settings...
Input
Tags and Layers
Audio
Time
Player
Physics
Physics 2D
Quality
Graphics
Network
Editor
Script Execution Order
Maximize on Play
Mute audio
Stats
Gizmos

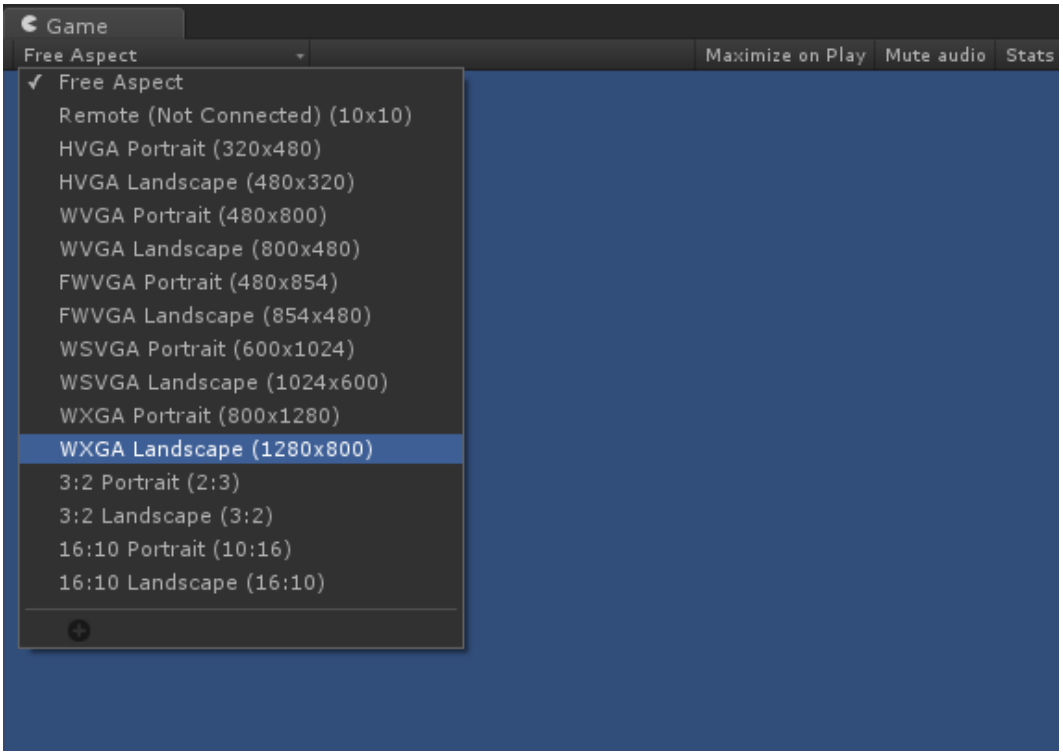

Inspector
Editor Settings
Unity Remote
Device
None
Compression
JPEG
Resolution
Normal
Version Control
Mode
Hidden Meta Files
WWW Security Emulation
Host URL
http://www.mydomain.
Asset Serialization
Mode
Mixed
Default Behavior Mode
Mode
2D
Sprite Packer
Mode
Always Enabled

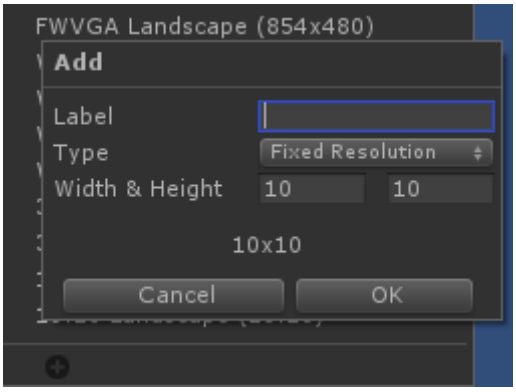

Inspector
Main Camera
Static
Tag MainCamera
Layer Default
Transform
Position X 0 Y 0 Z -10
Rotation X 0 Y 0 Z 0
Scale X 1 Y 1 Z 1
Camera
Clear Flags Skybox
Background
Culling Mask Everything
Projection Orthographic
Size 5
Clipping Planes Near 0.3

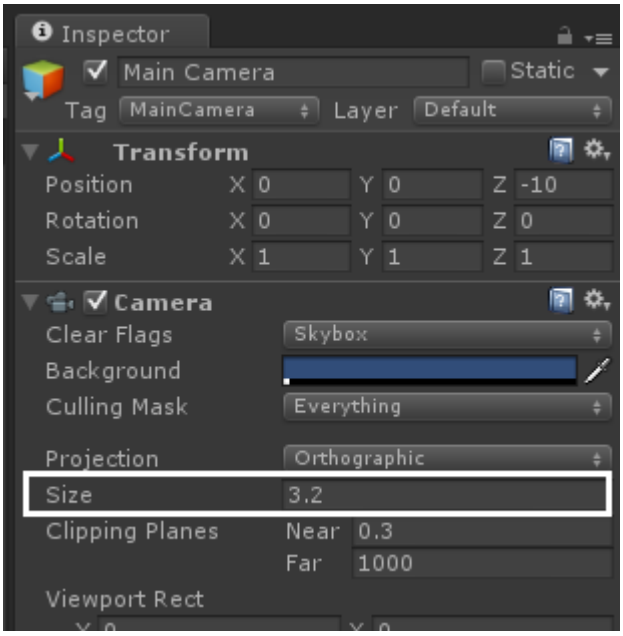

Project
Console
Create
Favorites
Assets
Graphics
Models
Prefabs
Scenes
Scripts
Sounds
Assets
Graphics
Models
Prefabs
Scenes
Scripts
Sounds

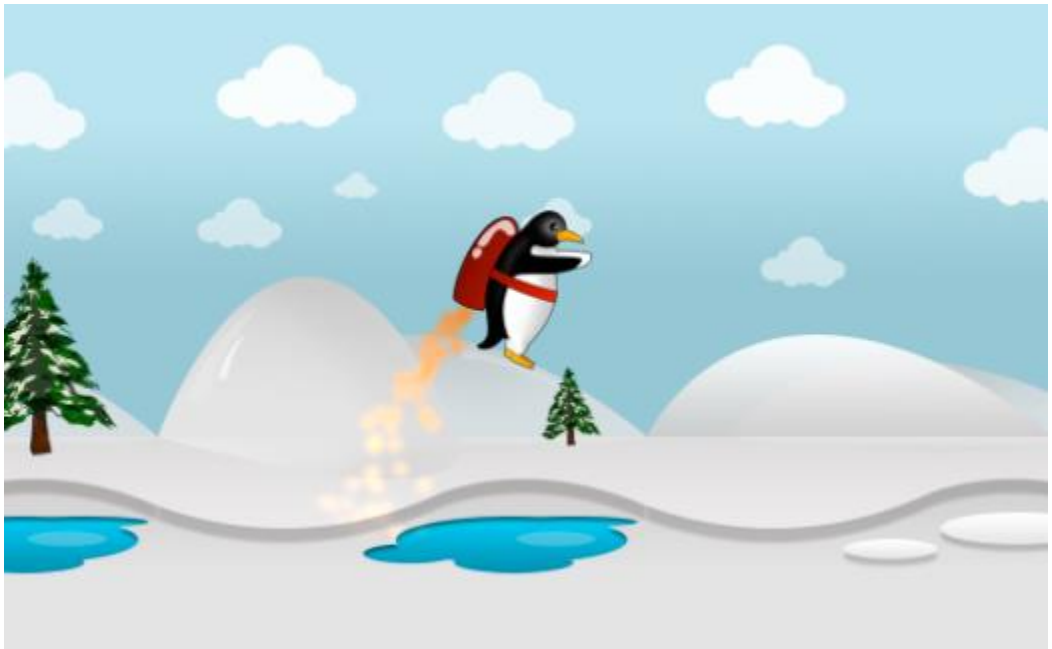

File
Edit
Assets
GameObject
Component
New Scene Ctrl+N
Open Scene Ctrl+O
Save Scene Ctrl+S
Save Scene as... Ctrl+Shift+S
New Project...
Open Project...
Save Project
Build Settings... Ctrl+Shift+B
Build & Run Ctrl+B
Build in Cloud...
Exit

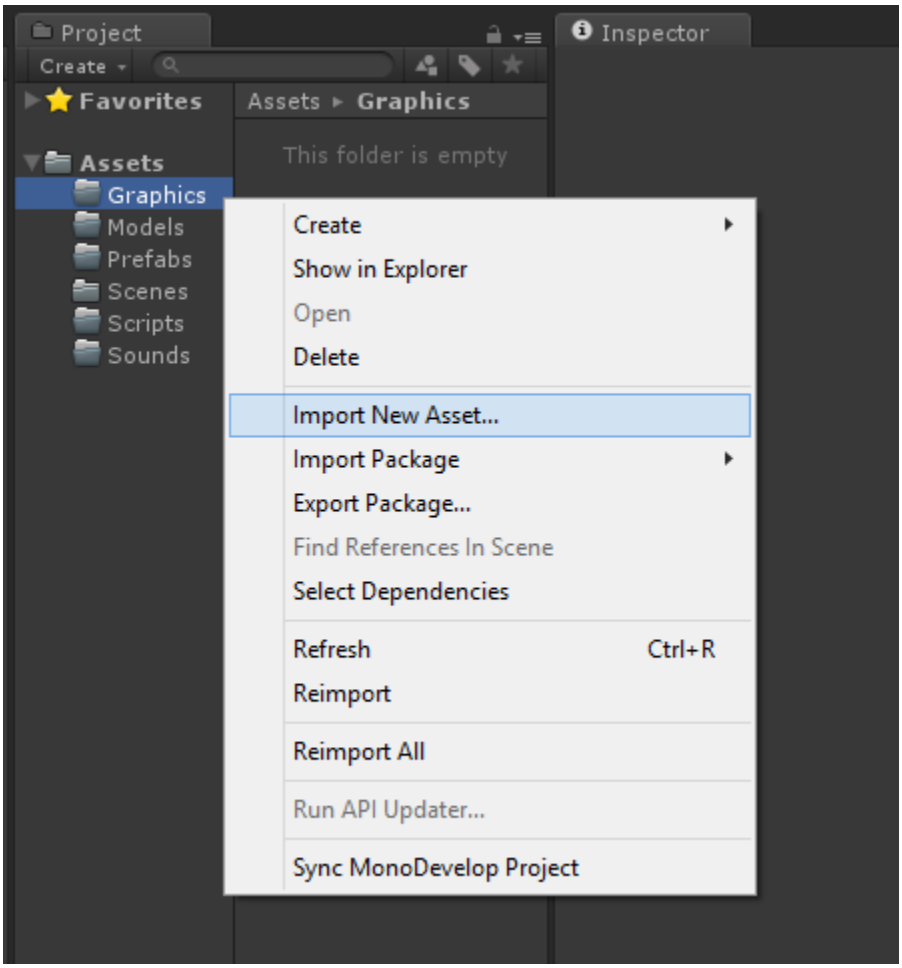

Build Settings
Scenes In Build
Add Current
Platform
Web Player
PC, Mac & Linux Standalone
iOS
Android
BlackBerry
Windows Store
Windows Phone 8
Android
Texture Compression
Don't override
Google Android Project
Development Build
Autoconnect Profiler
Script Debugging
Switch Platform
Player Settings...
Build
Build And Run

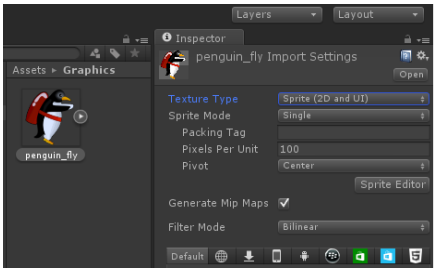

Game
Free Aspect
Maximize on Play
Mute audio
Stats
✓ Free Aspect
Remote (Not Connected) (10x10)
HVGA Portrait (320x480)
HVGA Landscape (480x320)
WVGA Portrait (480x800)
WVGA Landscape (800x480)
FWVGA Portrait (480x854)
FWVGA Landscape (854x480)
WSVGA Portrait (600x1024)
WSVGA Landscape (1024x600)
WXGA Portrait (800x1280)
WXGA Landscape (1280x800)
3:2 Portrait (2:3)
3:2 Landscape (3:2)
16:10 Portrait (10:16)
16:10 Landscape (16:10)

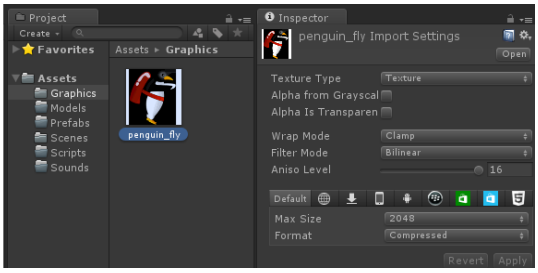

FWVGA Landscape (854x480)
Add
Label
Type
Fixed Resolution
Width & Height
10
10
10x10
Cancel
OK

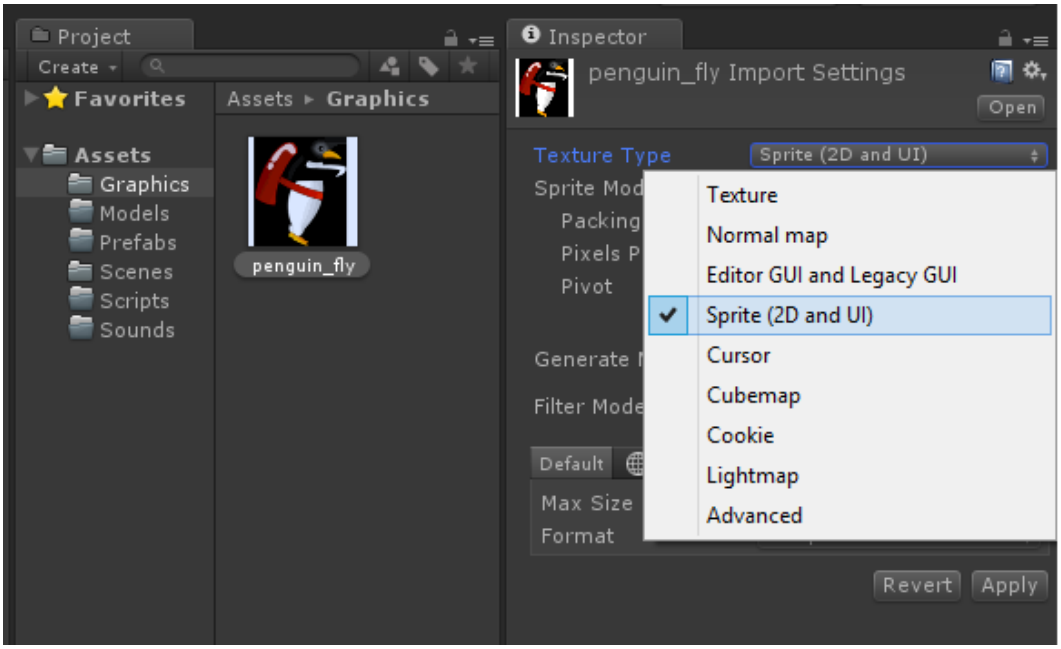

Inspector
Main Camera
Static
Tag MainCamera
Layer Default
Transform
Position X 0 Y 0 Z -10
Rotation X 0 Y 0 Z 0
Scale X 1 Y 1 Z 1
Camera
Clear Flags Skybox
Background
Culling Mask Everything
Projection Orthographic
Size 3.2
Clipping Planes Near 0.3
Far 1000
Viewport Rect

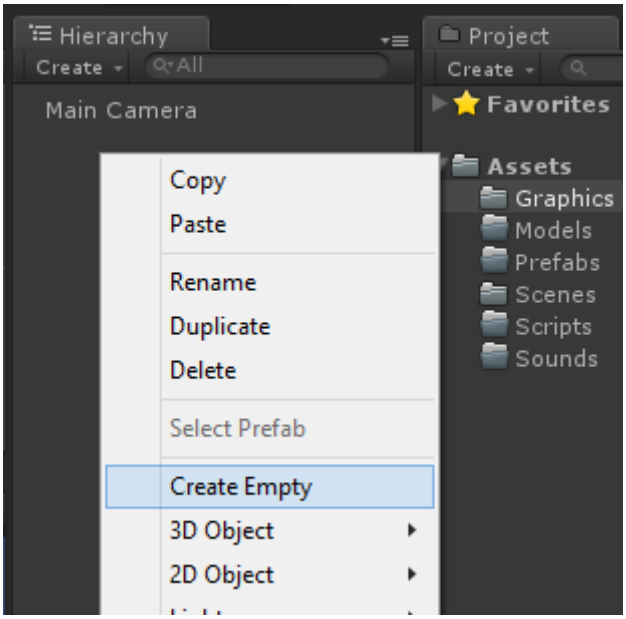


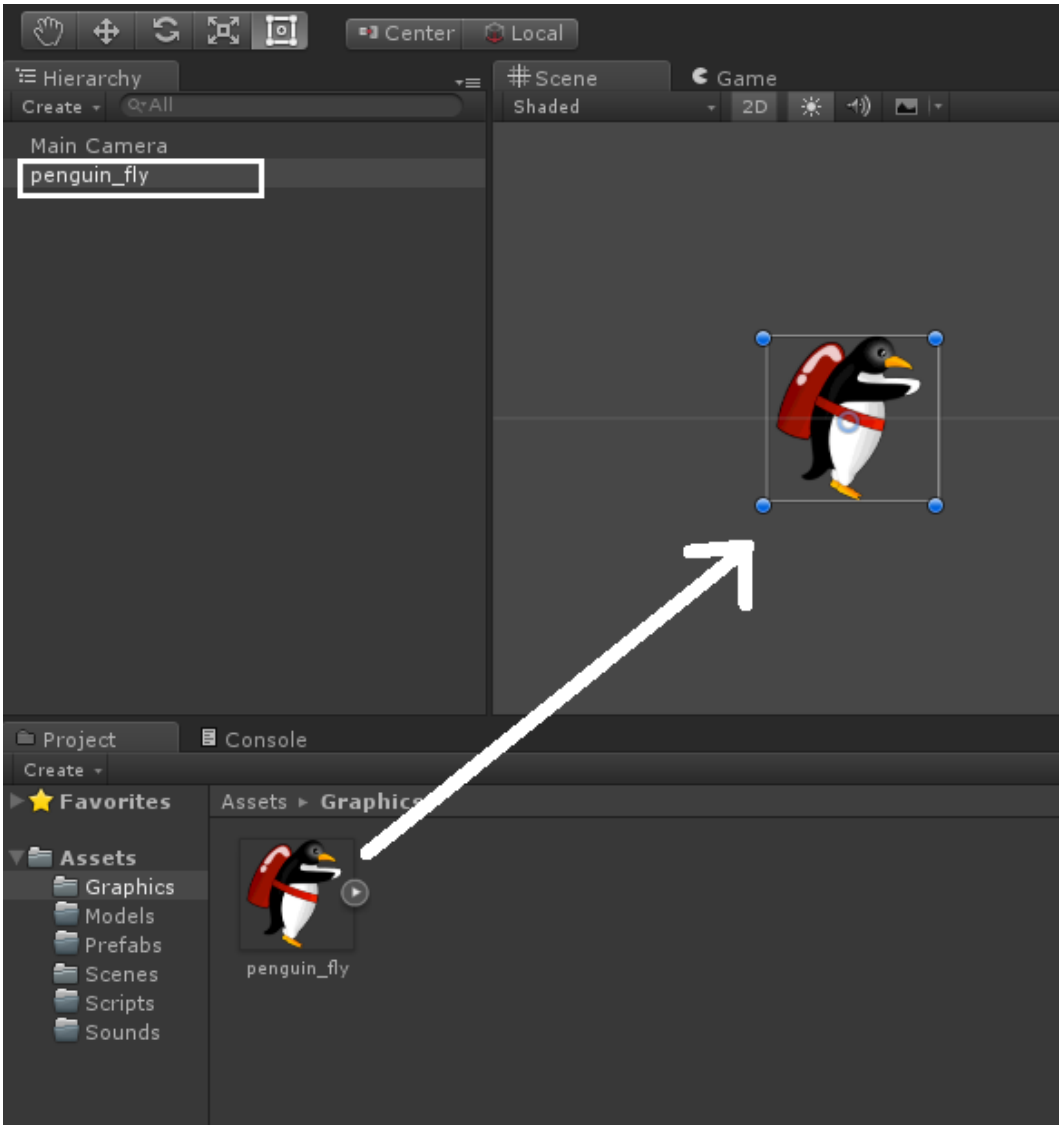

Project
Create
Favorites
Assets
Graphics
Models
Prefabs
Scenes
Scripts
Sounds
Assets ▸ Graphics
This folder is empty
Inspector
Create
Show in Explorer
Open
Delete
Import New Asset...
Import Package
Export Package...
Find References In Scene
Select Dependencies
Refresh
Ctrl+R
Reimport
Reimport All
Run API Updater...
Sync MonoDevelop Project

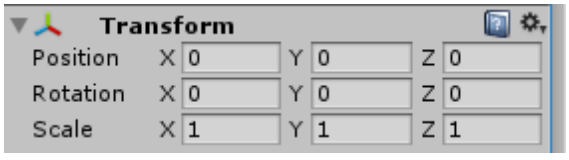

Layers
Layout
Inspector
penguin_fly Import Settings
Open
Assets ▸ Graphics
penguin_fly
Texture Type
Sprite (2D and UI)
Sprite Mode
Single
Packing Tag
Pixels Per Unit
100
Pivot
Center
Sprite Editor
Generate Mip Maps
Filter Mode
Bilinear
Default

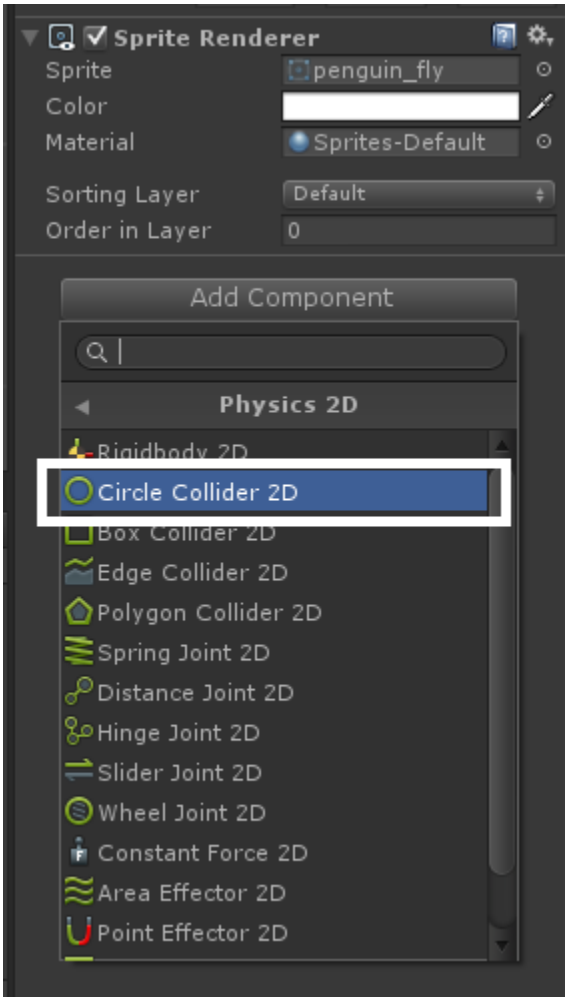

Project
Create
Favorites
Assets
Graphics
Models
Prefabs
Scenes
Scripts
Sounds
Assets ▸ Graphics
penguin_fly
Inspector
penguin_fly Import Settings
Open
Texture Type
Texture
Alpha from Grayscal
Alpha Is Transparen
Wrap Mode
Clamp
Filter Mode
Bilinear
Aniso Level
16
Default
Max Size
2048
Format
Compressed
Revert
Apply

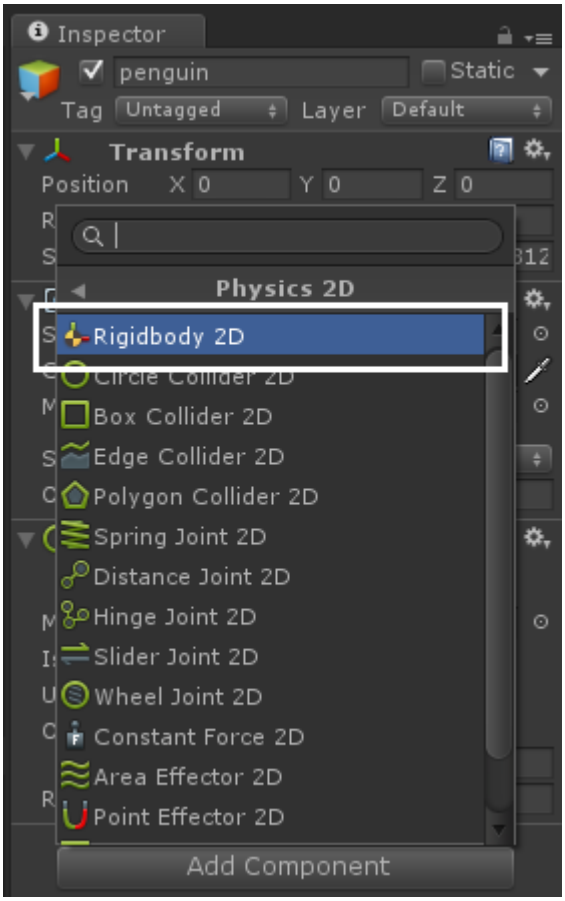

Project
Create
Favorites
Assets
Graphics
Models
Prefabs
Scenes
Scripts
Sounds
Assets ▸ Graphics
penguin_fly
Inspector
penguin_fly Import Settings
Open
Texture Type
Sprite (2D and UI)
Texture
Normal map
Editor GUI and Legacy GUI
Sprite (2D and UI)
Cursor
Cubemap
Cookie
Lightmap
Advanced
Default
Max Size
Format
Revert
Apply

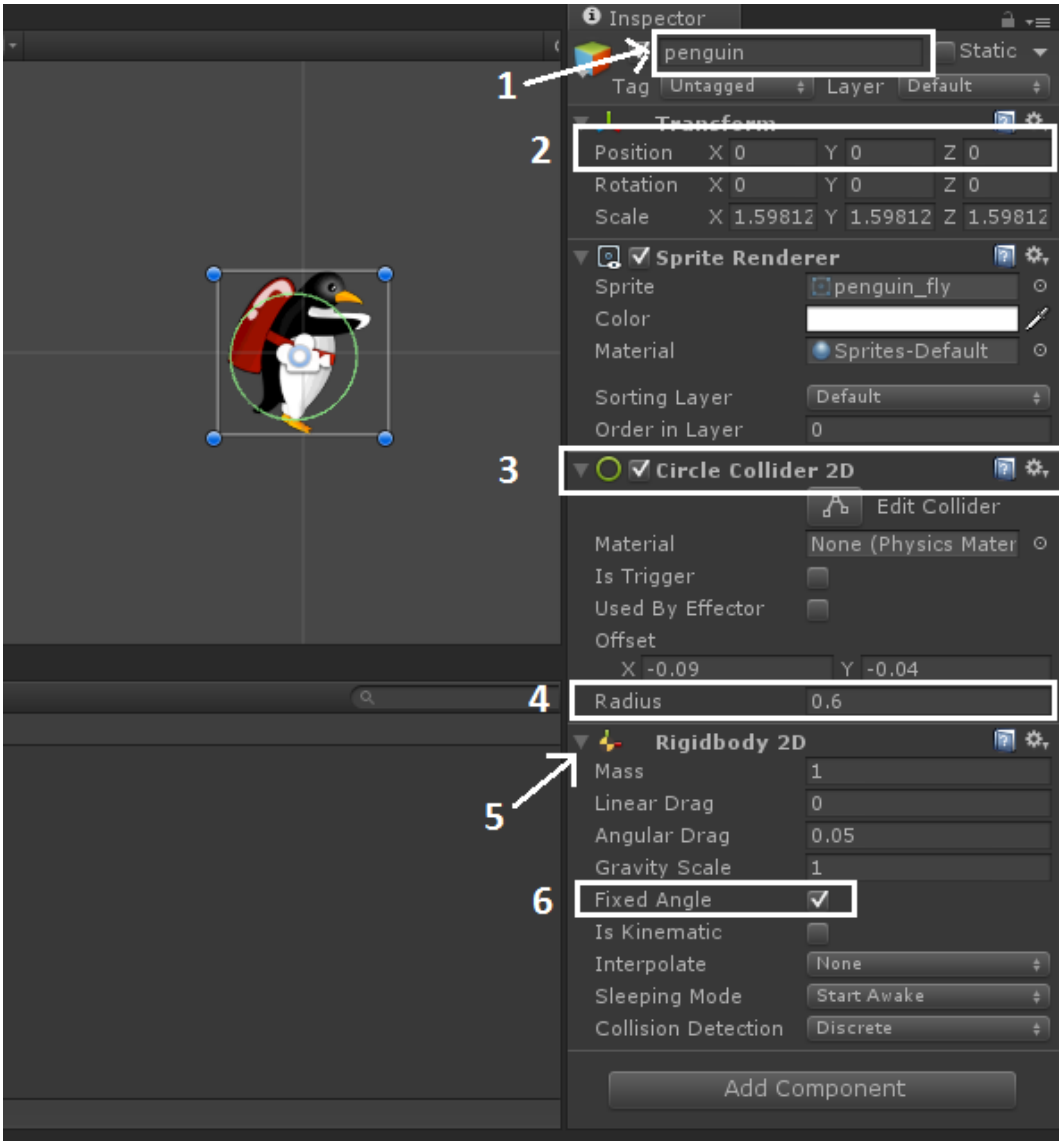

Hierarchy
Create
All
Main Camera
Project
Create
Favorites
Assets
Graphics
Models
Prefabs
Scenes
Scripts
Sounds
Copy
Paste
Rename
Duplicate
Delete
Select Prefab
Create Empty
3D Object
2D Object

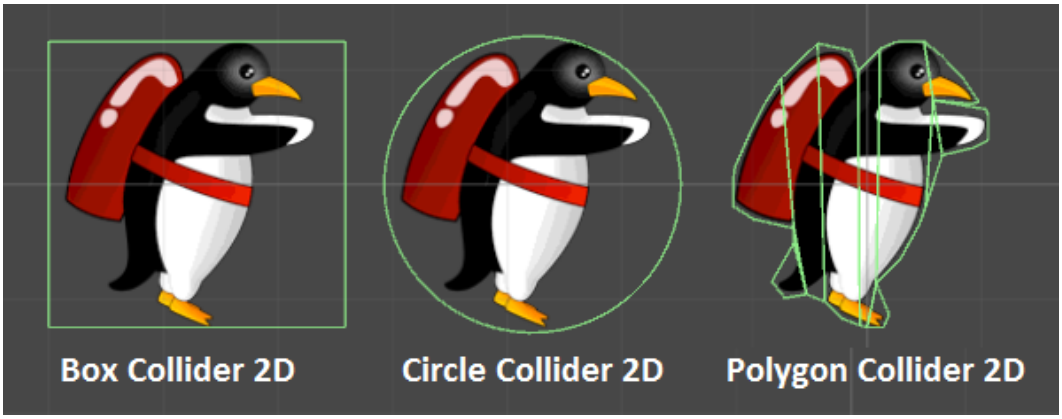

Center
Local
Hierarchy
Create
All
Main Camera
penguin_fly
Scene
Game
Shaded
2D
Project
Console
Create
Favorites
Assets
Graphics
Models
Prefabs
Scenes
Scripts
Sounds
Assets ▸ Graphics
penguin_fly

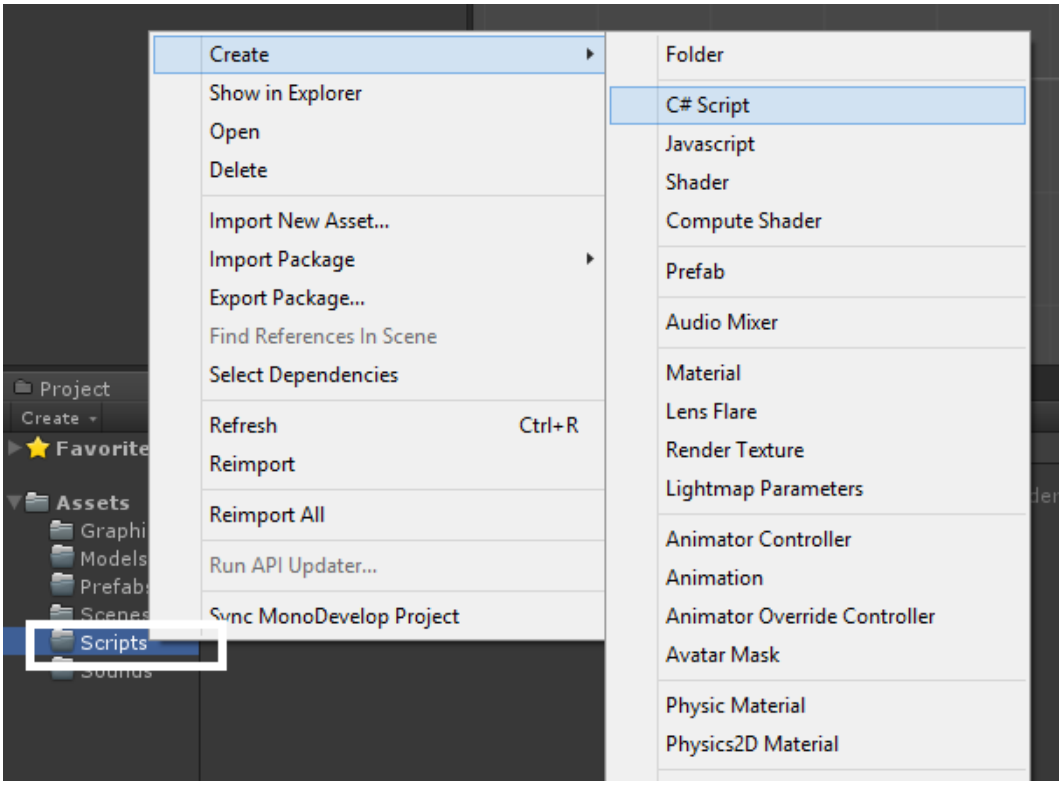

Transform
Position X 0 Y 0 Z 0
Rotation X 0 Y 0 Z 0
Scale X 1 Y 1 Z 1

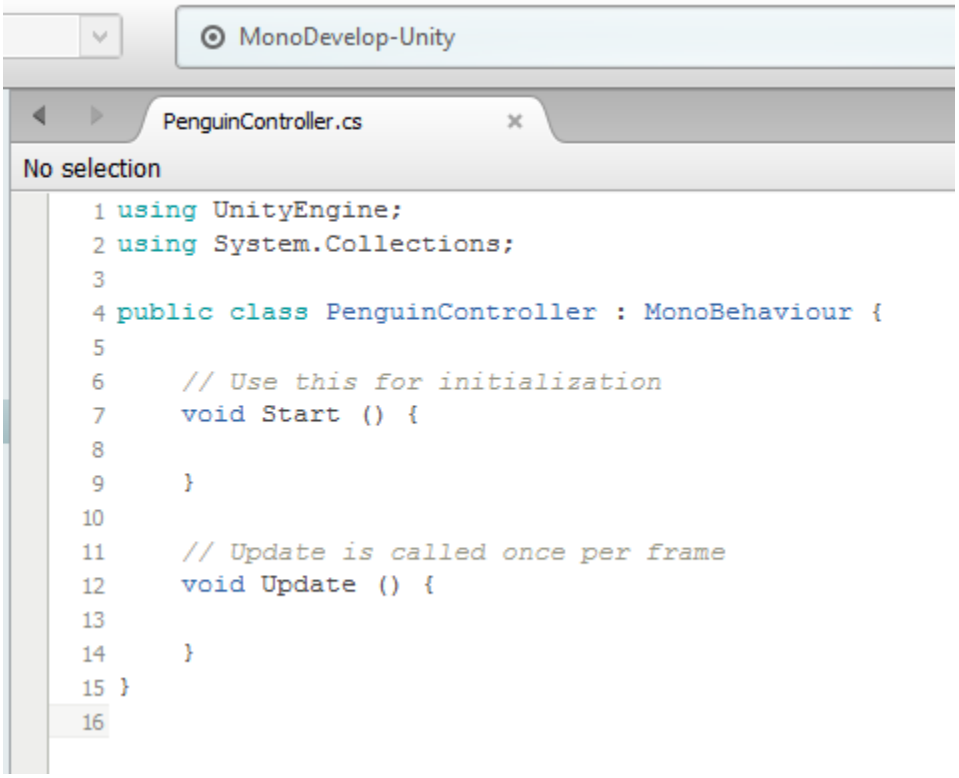

Sprite Renderer
Sprite
penguin_fly
Color
Material
Sprites-Default
Sorting Layer
Default
Order in Layer
0
Add Component
Physics 2D
Rigidbody 2D
Circle Collider 2D
Box Collider 2D
Edge Collider 2D
Polygon Collider 2D
Spring Joint 2D
Distance Joint 2D
Hinge Joint 2D
Slider Joint 2D
Wheel Joint 2D
Constant Force 2D
Area Effector 2D
Point Effector 2D

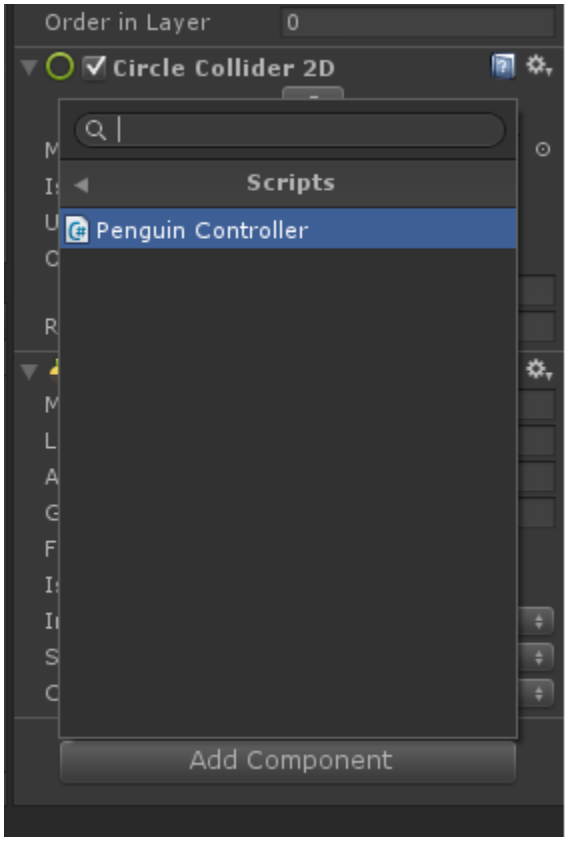

Inspector
penguin
Static
Tag
Untagged
Layer
Default
Transform
Position
X 0
Y 0
Z 0
Physics 2D
Rigidbody 2D
Box Collider 2D
Edge Collider 2D
Polygon Collider 2D
Spring Joint 2D
Distance Joint 2D
Hinge Joint 2D
Slider Joint 2D
Wheel Joint 2D
Constant Force 2D
Area Effector 2D
Point Effector 2D
Add Component


Inspector
penguin
Static
Tag
Untagged
Layer
Default
Transform
Position
X 0
Y 0
Z 0
Rotation
X 0
Y 0
Z 0
Scale
X 1.59812
Y 1.59812
Z 1.59812
Sprite Renderer
Sprite
penguin_fly
Color
Material
Sprites-Default
Sorting Layer
Default
Order in Layer
0
Circle Collider 2D
Edit Collider
Material
None (Physics Mater
Is Trigger
Used By Effector
Offset
X -0.09
Y -0.04
Radius
0.6
Rigidbody 2D
Mass
1
Linear Drag
0
Angular Drag
0.05
Gravity Scale
1
Fixed Angle
Is Kinematic
Interpolate
None
Sleeping Mode
Start Awake
Collision Detection
Discrete
Add Component
1
2
3
4
5
6

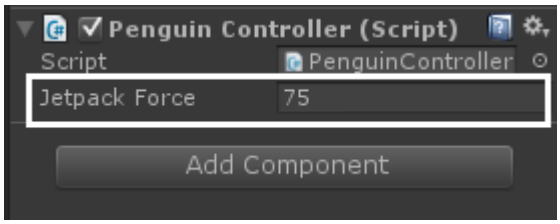

Box Collider 2D
Circle Collider 2D
Polygon Collider 2D


Create
Show in Explorer
Open
Delete
Import New Asset...
Import Package
Export Package...
Find References In Scene
Select Dependencies
Refresh
Ctrl+R
Reimport
Reimport All
Run API Updater...
Sync MonoDevelop Project
Folder
C# Script
Javascript
Shader
Compute Shader
Prefab
Audio Mixer
Material
Lens Flare
Render Texture
Lightmap Parameters
Animator Controller
Animation
Animator Override Controller
Avatar Mask
Physic Material
Physics2D Material
Project
Create
Favorite
Assets
Scripts


MonoDevelop-Unity
PenguinController.cs
No selection
1 using UnityEngine;
2 using System.Collections;
3
4 public class PenguinController : MonoBehaviour {
5
6 // Use this for initialization
7 void Start () {
8
9 }
10
11 // Update is called once per frame
12 void Update () {
13
14 }
15 }
16

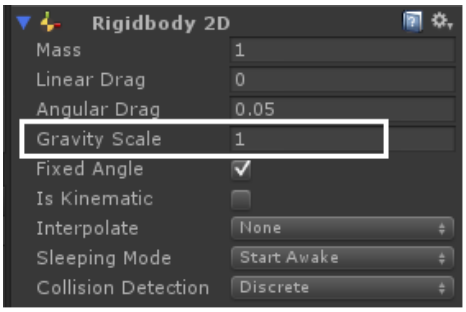

Order in Layer
0
Circle Collider 2D
Scripts
Penguin Controller
Add Component

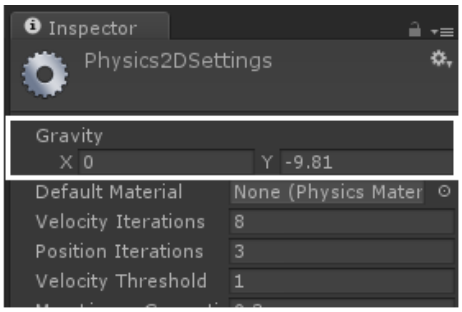
```
using UnityEngine;
using System.Collections;

public class PenguinController : MonoBehaviour {

    // Use this for initialization
    void Start () {

    }

    // Update is called once per frame
    void Update () {

    }
}
```



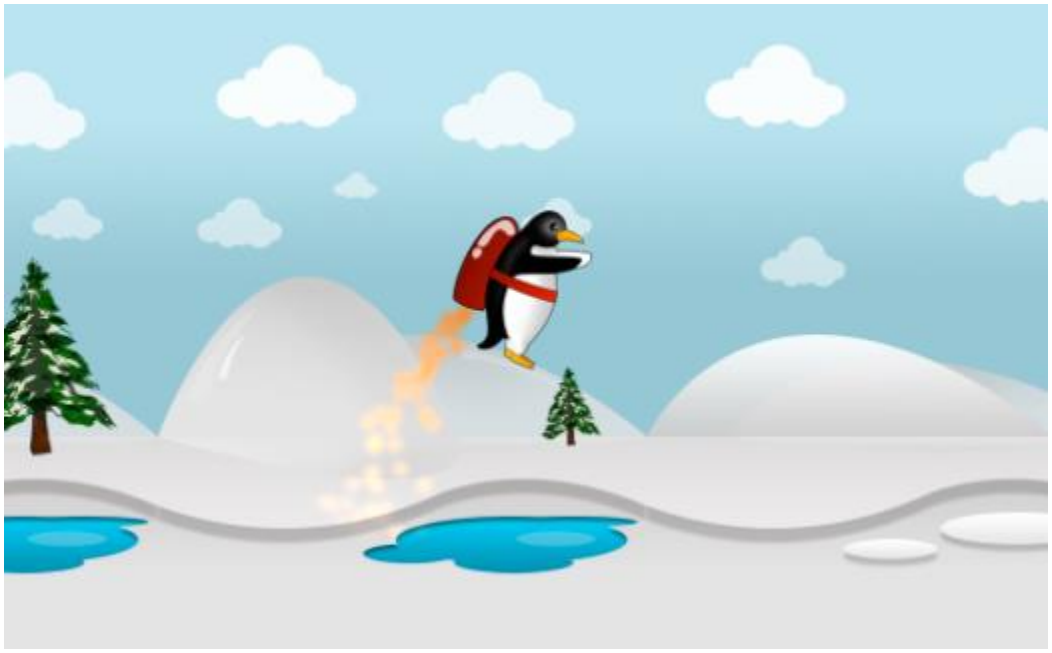

```
void FixedUpdate()
{
    bool jetpackActive = Input.GetButton ("Fire1");
    if (jetpackActive == true) {
        this.GetComponent<Rigidbody2D>().AddForce(new Vector2(0, jetpackForce));
    }
}
```

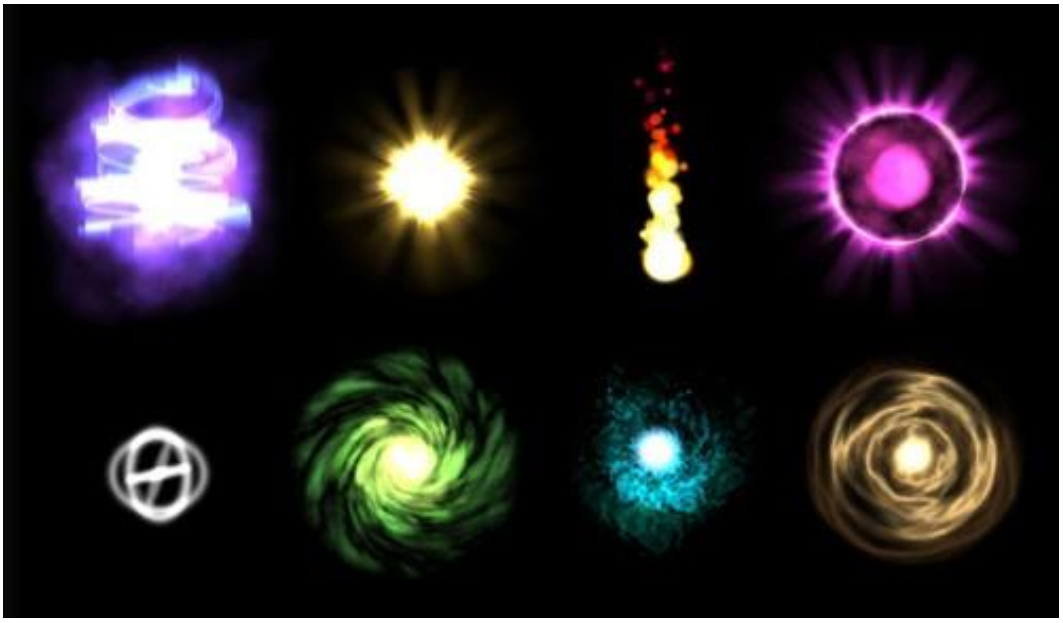
```
using UnityEngine;
using System.Collections;

public class PenguinController : MonoBehaviour {

    public float jetpackForce = 75.0f;

    // Use this for initialization
    void Start () {

    }

    // Update is called once per frame
    void Update () {

    }

    void FixedUpdate()
    {
        bool jetpackActive = Input.GetButton ("Fire1");
        if (jetpackActive == true) {
            this.GetComponent<Rigidbody2D>().AddForce(new Vector2(0, jetpackForce));
        }
    }
}
```

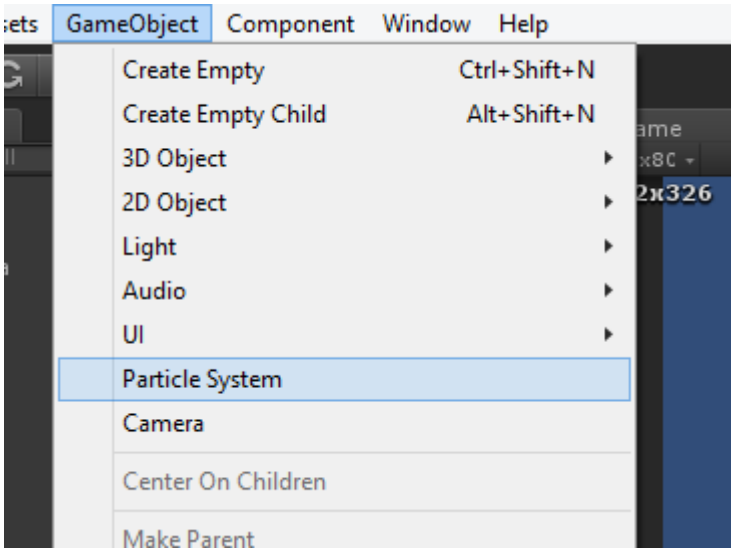


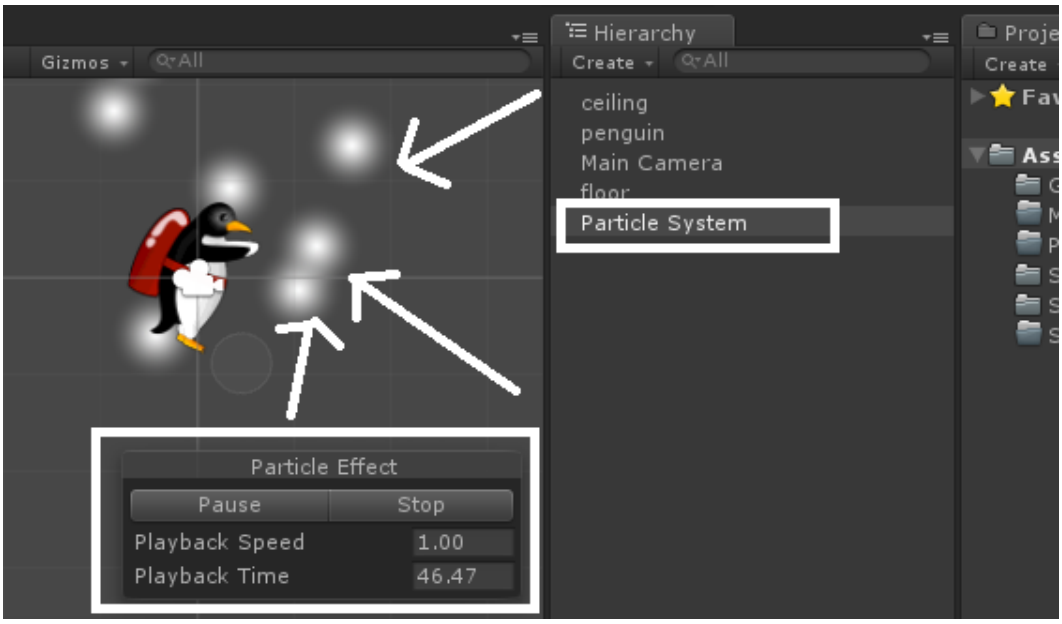


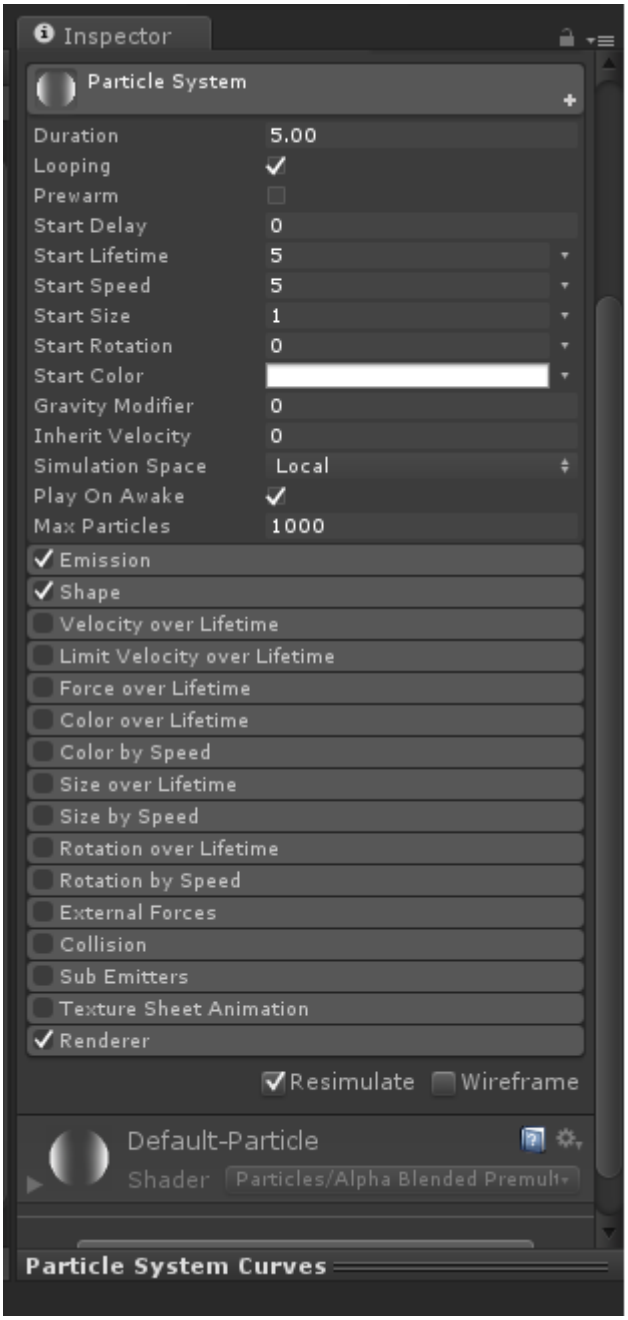
Chapter 2: Finishing the Perky Penguin 2D Game

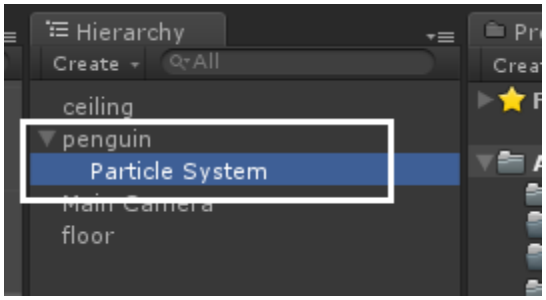


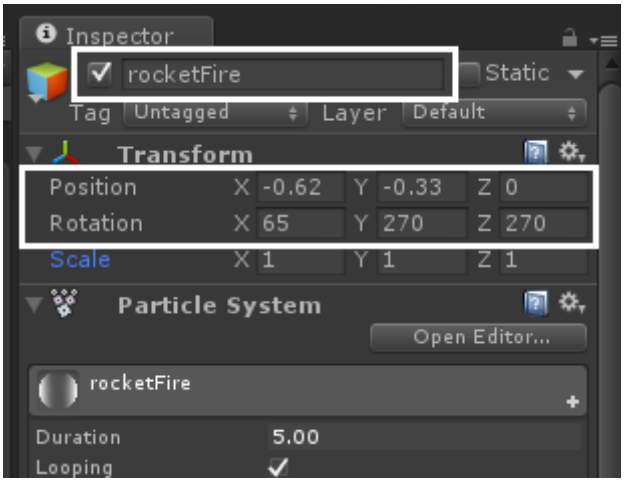


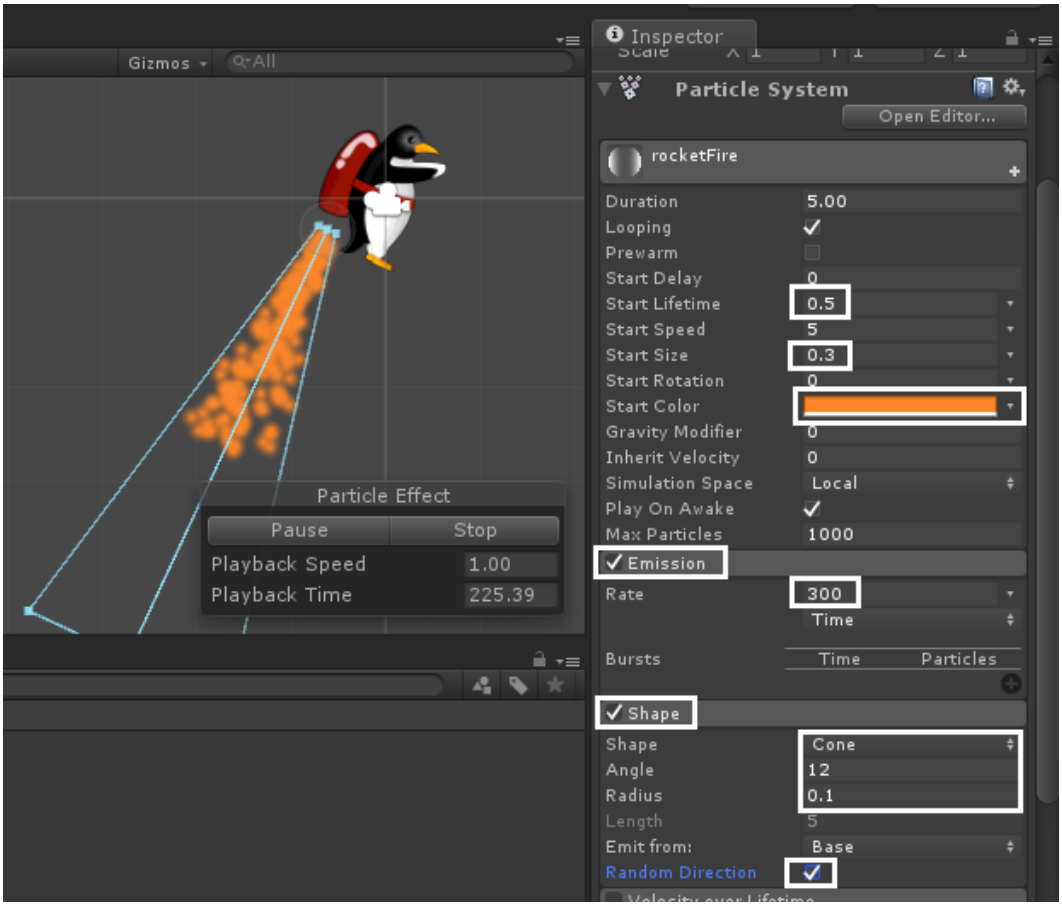

GameObject
Component
Window
Help
Create Empty
Ctrl+Shift+N
Create Empty Child
Alt+Shift+N
3D Object
2D Object
Light
Audio
UI
Particle System
Camera
Center On Children
Make Parent

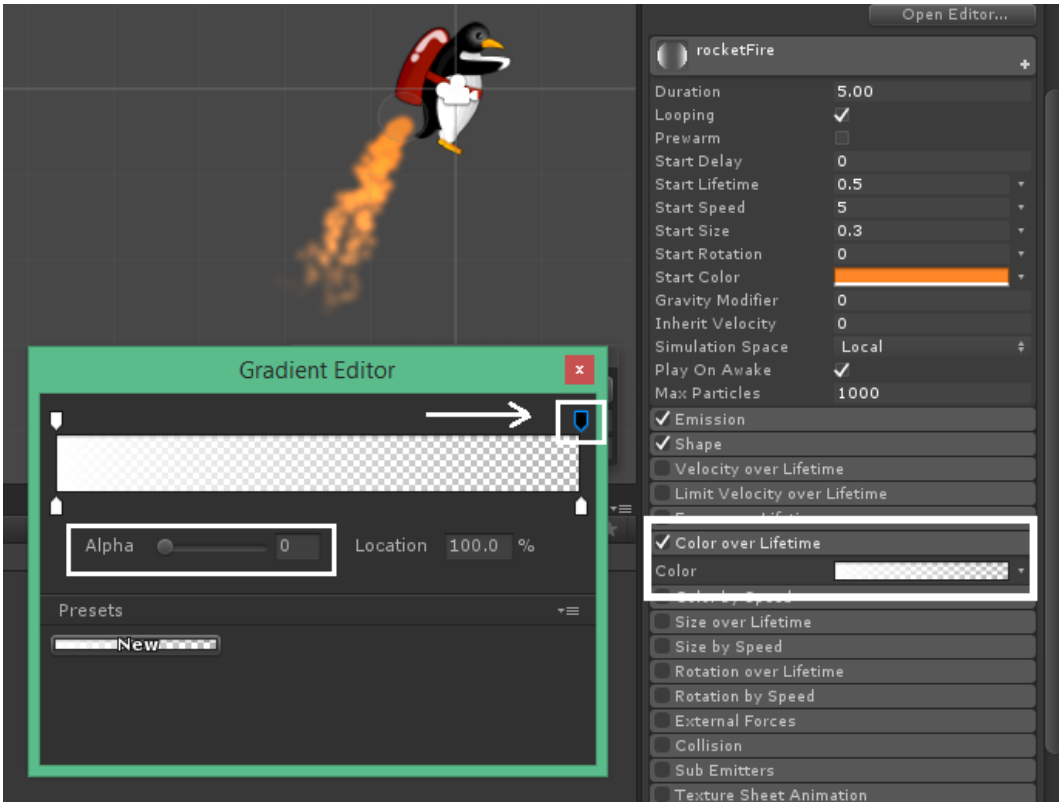

Gizmos
All
Hierarchy
Create
All
ceiling
penguin
Main Camera
floor
Particle System
Particle Effect
Pause
Stop
Playback Speed
1.00
Playback Time
46.47

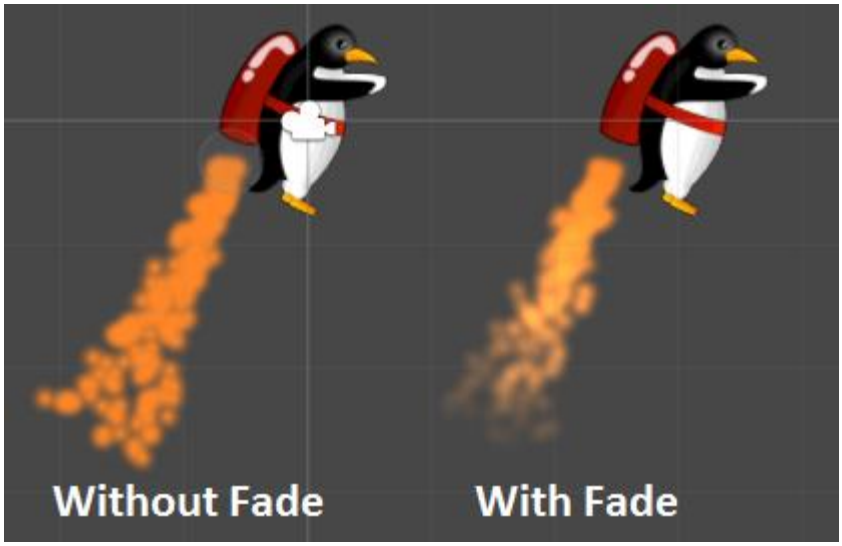

Inspector
Particle System
Duration 5.00
Looping
Prewarm
Start Delay 0
Start Lifetime 5
Start Speed 5
Start Size 1
Start Rotation 0
Start Color
Gravity Modifier 0
Inherit Velocity 0
Simulation Space Local
Play On Awake
Max Particles 1000
Emission
Shape
Velocity over Lifetime
Limit Velocity over Lifetime
Force over Lifetime
Color over Lifetime
Color by Speed
Size over Lifetime
Size by Speed
Rotation over Lifetime
Rotation by Speed
External Forces
Collision
Sub Emitters
Texture Sheet Animation
Renderer
Resimulate
Wireframe
Default-Particle
Shader
Particles/Alpha Blended Premult
Particle System Curves

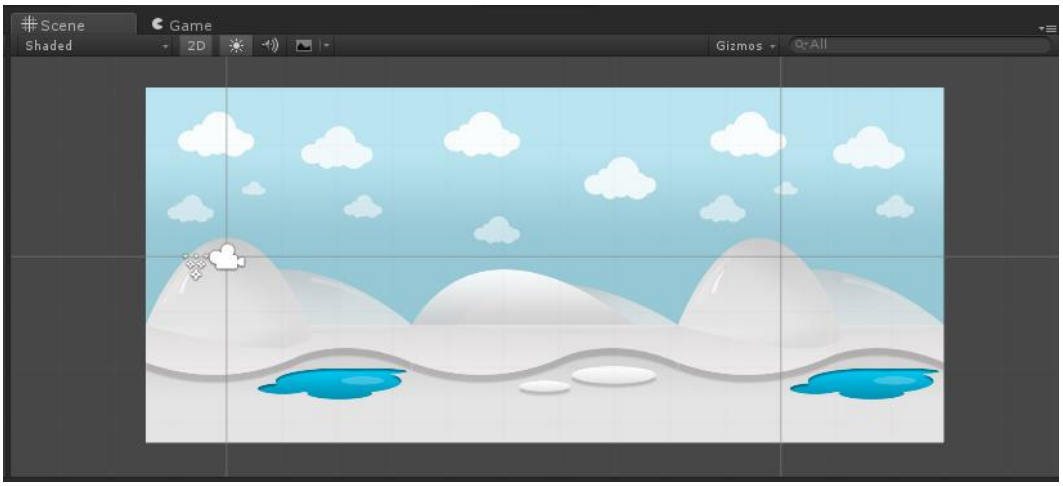

Hierarchy
Create
All
ceiling
penguin
Particle System
floor

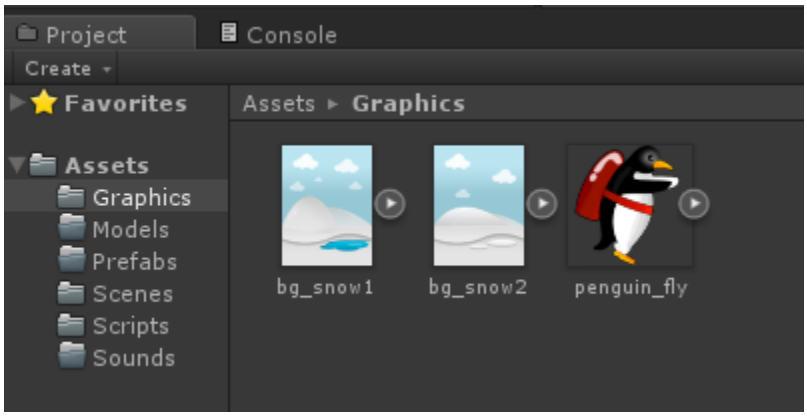

Inspector
rocketFire
Static
Tag
Untagged
Layer
Default
Transform
Position
X -0.62
Y -0.33
Z 0
Rotation
X 65
Y 270
Z 270
Scale
X 1
Y 1
Z 1
Particle System
Open Editor...
rocketFire
Duration
5.00
Looping

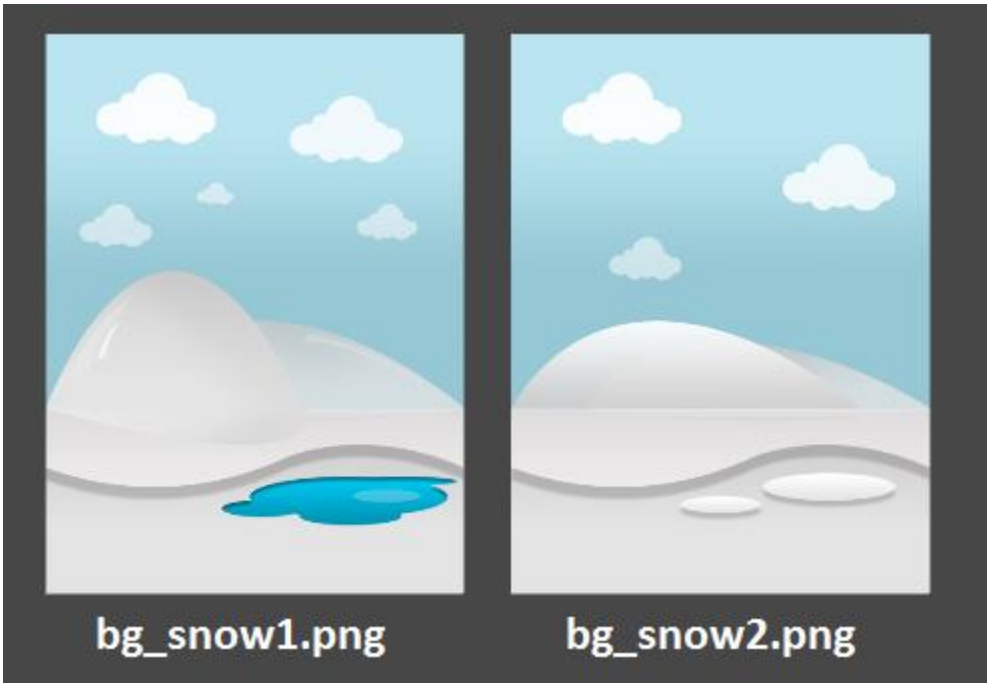

Inspector
Gizmos
All
Particle System
Open Editor...
rocketFire
Duration 5.00
Looping
Prewarm
Start Delay 0
Start Lifetime 0.5
Start Speed 5
Start Size 0.3
Start Rotation 0
Start Color
Gravity Modifier 0
Inherit Velocity 0
Simulation Space Local
Play On Awake
Max Particles 1000
Emission
Rate 300
Time
Bursts Time Particles
Shape
Shape Cone
Angle 12
Radius 0.1
Length 5
Emit from: Base
Random Direction
Particle Effect
Pause Stop
Playback Speed 1.00
Playback Time 225.39

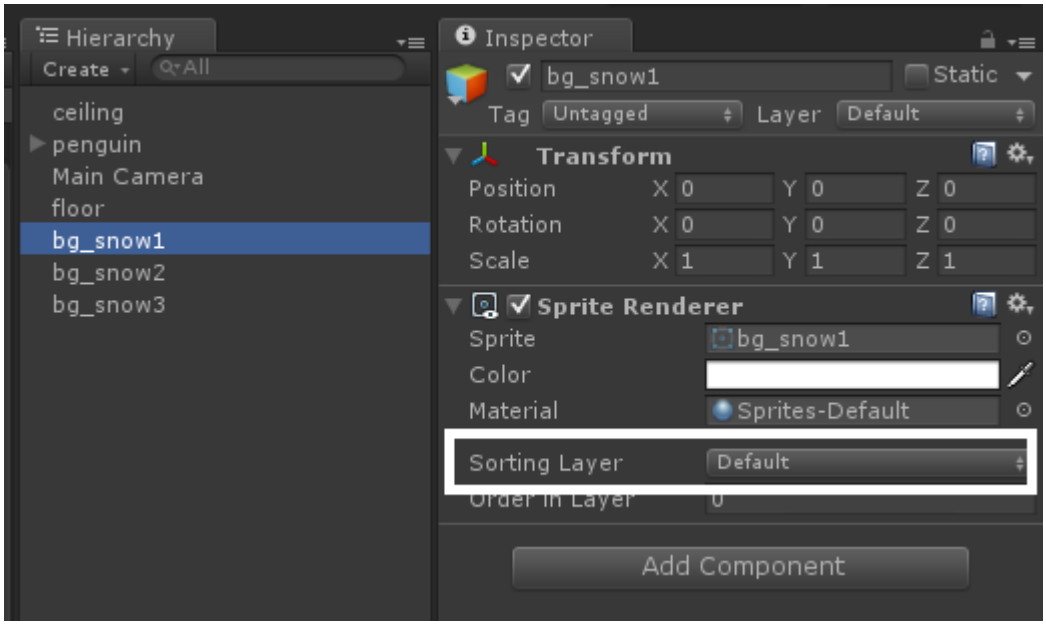

Open Editor...
rocketFire
Duration 5.00
Looping
Prewarm
Start Delay 0
Start Lifetime 0.5
Start Speed 5
Start Size 0.3
Start Rotation 0
Start Color
Gravity Modifier 0
Inherit Velocity 0
Simulation Space Local
Play On Awake
Max Particles 1000
Emission
Shape
Velocity over Lifetime
Limit Velocity over Lifetime
Color over Lifetime
Color
Size over Lifetime
Size by Speed
Rotation over Lifetime
Rotation by Speed
External Forces
Collision
Sub Emitters
Texture Sheet Animation
Gradient Editor
Alpha 0
Location 100.0 %
Presets
New

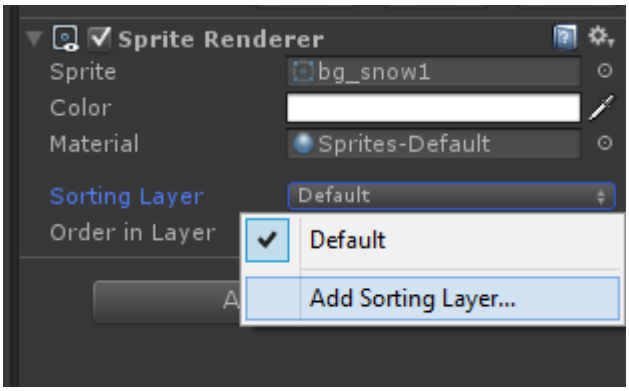

Without Fade
With Fade


Scene
Game
Shaded
2D
Gizmos
All

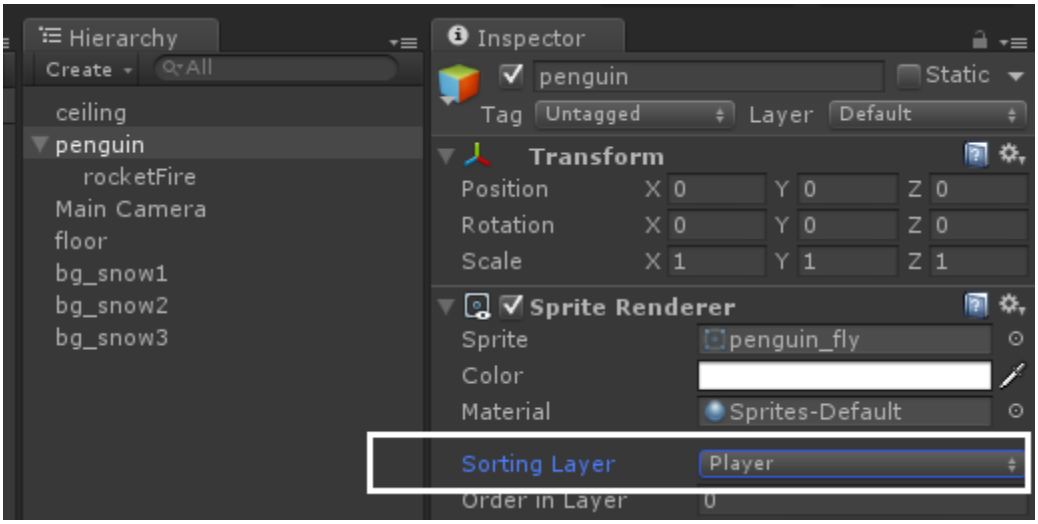

Project
Console
Create
Favorites
Assets
Graphics
Models
Prefabs
Scenes
Scripts
Sounds
Assets ▸ Graphics
bg_snow1
bg_snow2
penguin_fly

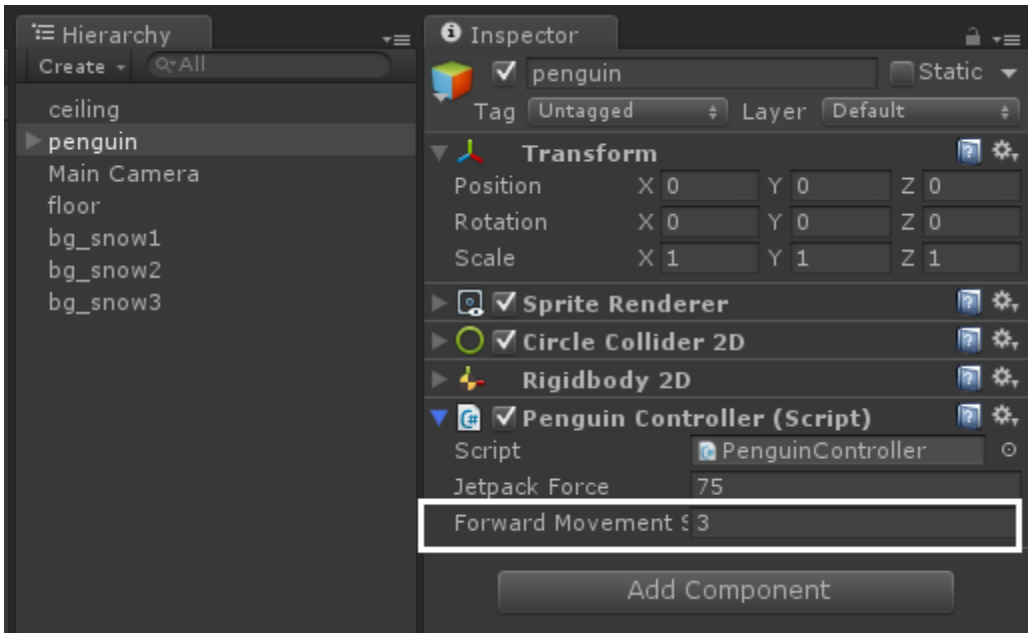

bg_snow1.png
bg_snow2.png


Hierarchy
Create
All
ceiling
penguin
Main Camera
floor
bg_snow1
bg_snow2
bg_snow3
Inspector
bg_snow1
Static
Tag
Untagged
Layer
Default
Transform
Position
Rotation
Scale
Sprite Renderer
Sprite
bg_snow1
Color
Material
Sprites-Default
Sorting Layer
Default
Add Component

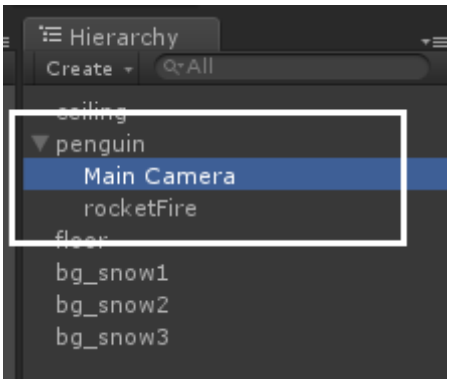

Sprite Renderer
Sprite
bg_snow1
Color
Material
Sprites-Default
Sorting Layer
Default
Order in Layer
Default
Add Sorting Layer...

Inspector
Tags & Layers
Tags
Sorting Layers
Layer
Default
Layer
Background
Layer
Surroundings
Layer
Objects
Layer
Player
Layers

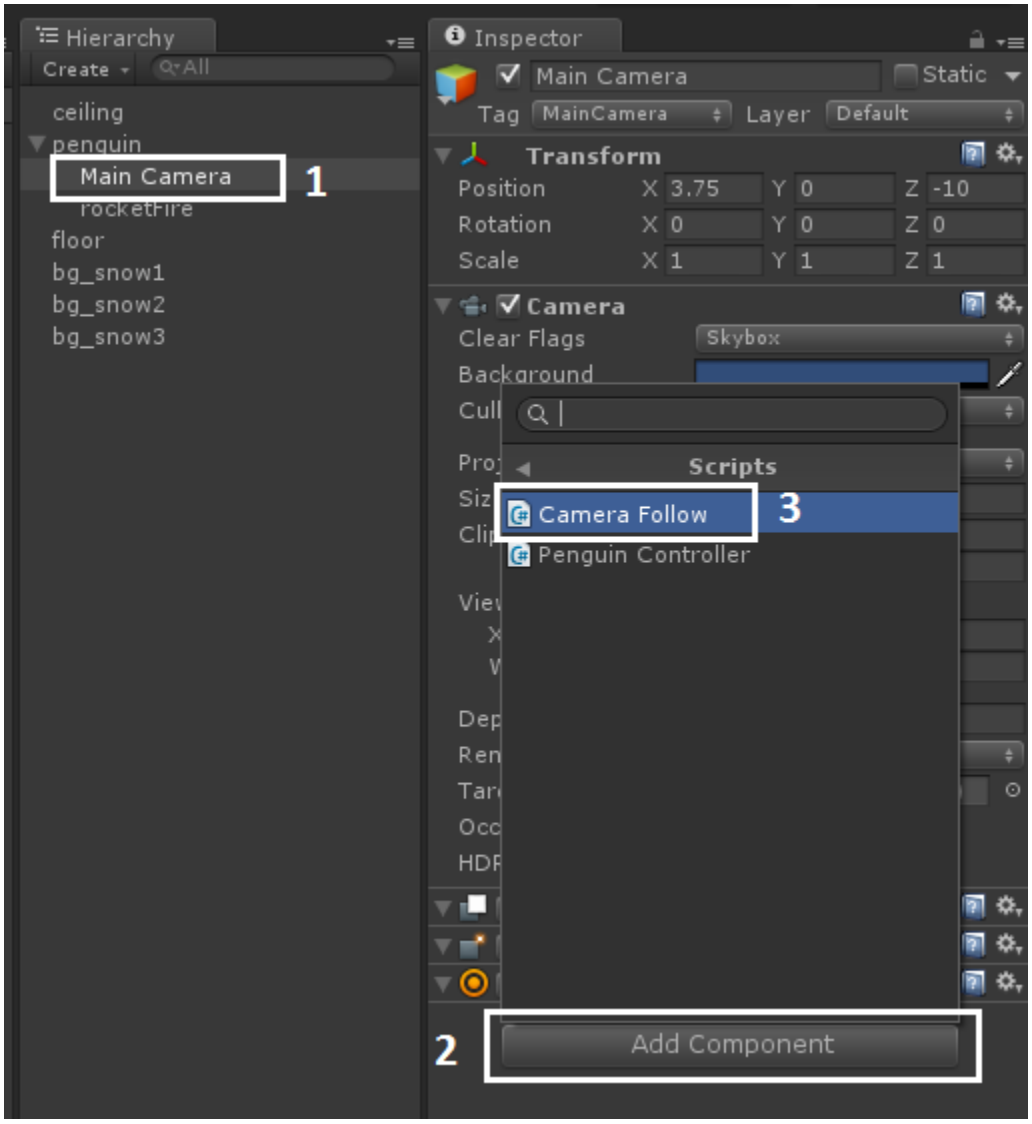




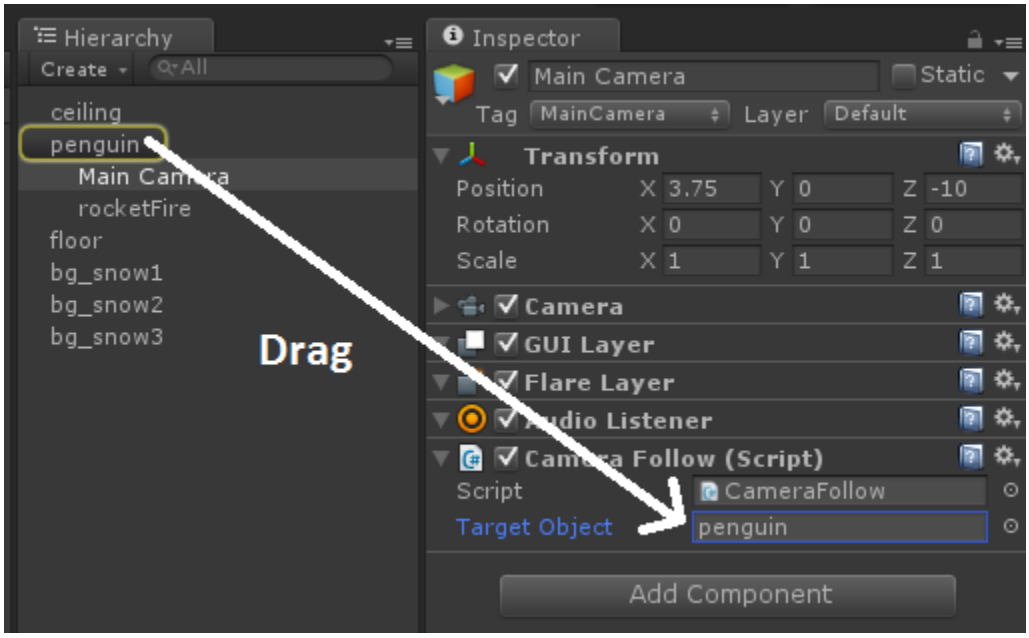

```
// Velocity of Penguin
Vector2 newVelocity = this.GetComponent<Rigidbody2D> ().velocity;
newVelocity.x = forwardMovementSpeed;
this.GetComponent<Rigidbody2D> ().velocity = newVelocity;
```

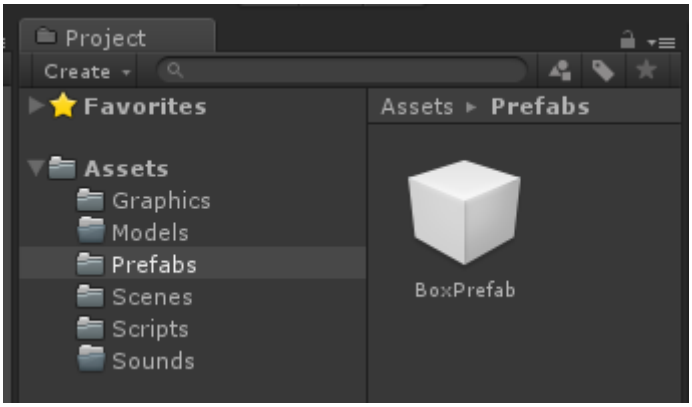


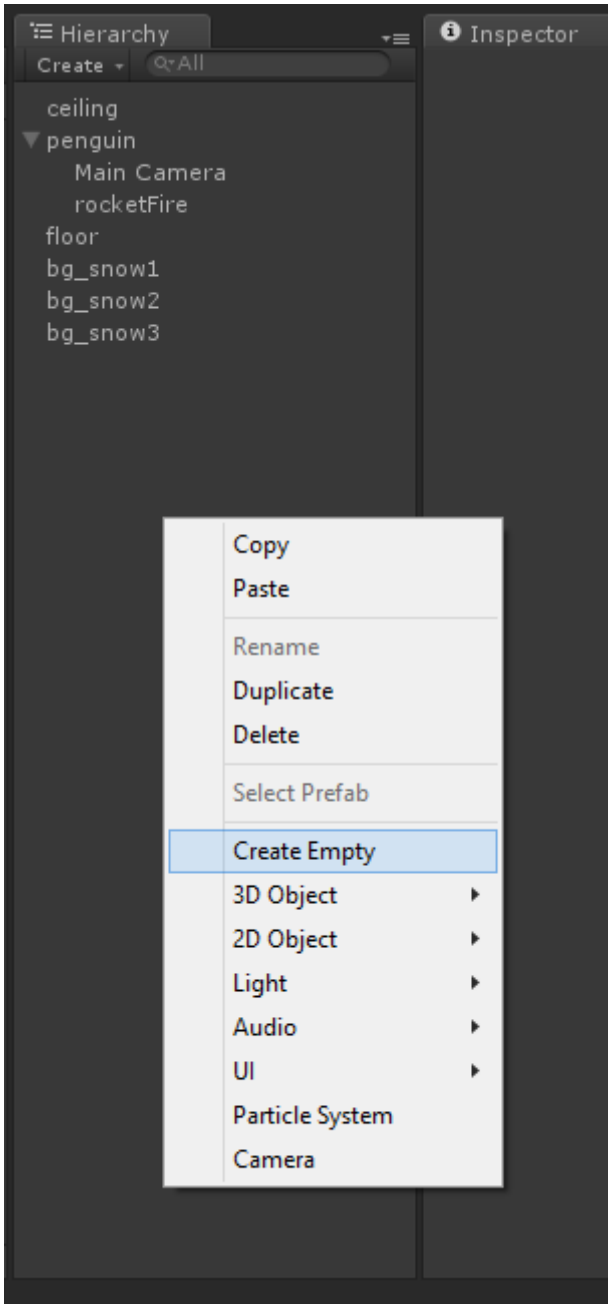

```
public class CameraFollow : MonoBehaviour {

    public GameObject targetObject;
    private float distanceToTarget;

    // Use this for initialization
    void Start () {
        distanceToTarget = transform.position.x - targetObject.transform.position.x;
    }

    // Update is called once per frame
    void Update () {
        float targetObjectX = targetObject.transform.position.x;

        Vector3 newCameraPosition = transform.position;
        newCameraPosition.x = targetObjectX + distanceToTarget;
        transform.position = newCameraPosition;
    }
}
```

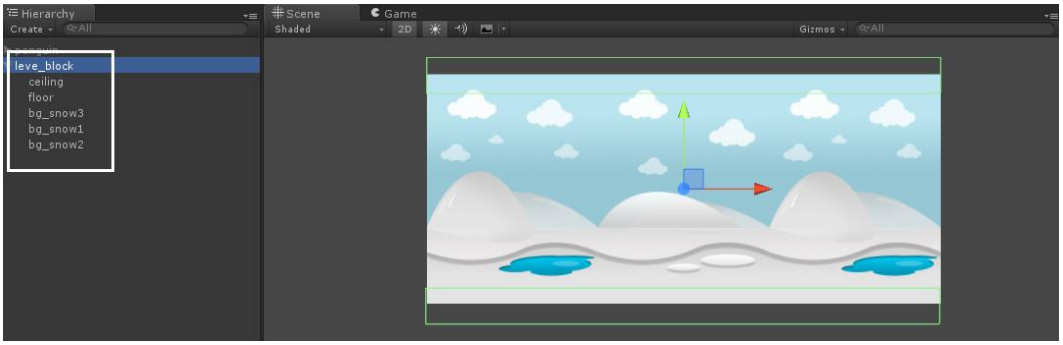

Hierarchy
Create
All
ceiling
penguin
Main Camera
1
rocketFire
floor
bg_snow1
bg_snow2
bg_snow3
Inspector
Main Camera
Static
Tag
MainCamera
Layer
Default
Transform
Position
X 3.75
Y 0
Z -10
Rotation
X 0
Y 0
Z 0
Scale
X 1
Y 1
Z 1
Camera
Clear Flags
Skybox
Background
Scripts
Camera Follow
3
Penguin Controller
2
Add Component

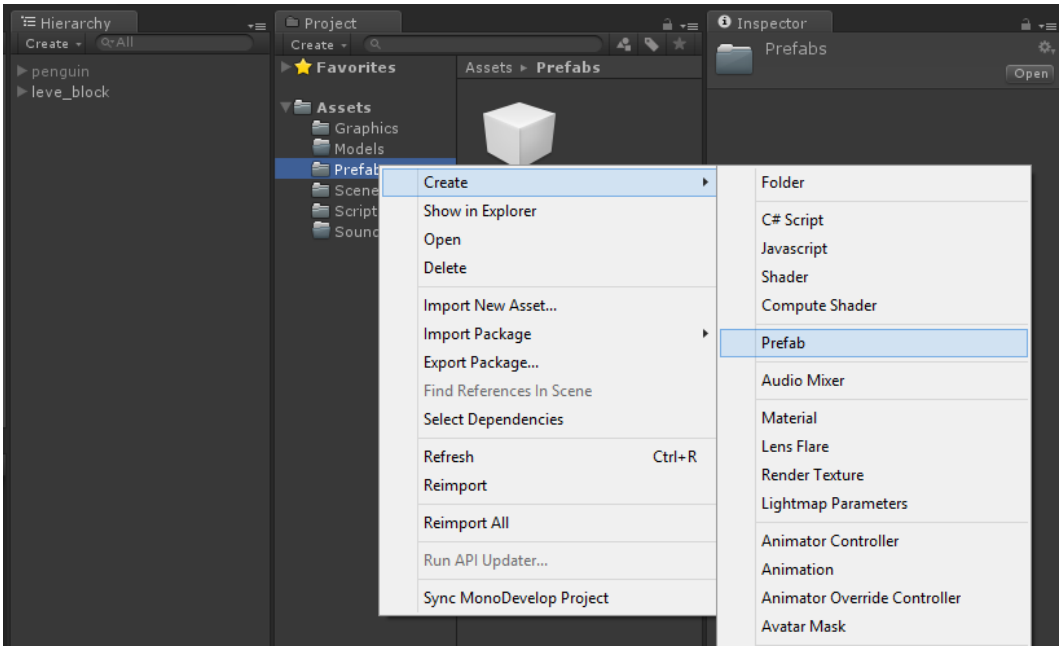
UnassignedReferenceException: The variable targetObject of CameraFollow has not been assigned.

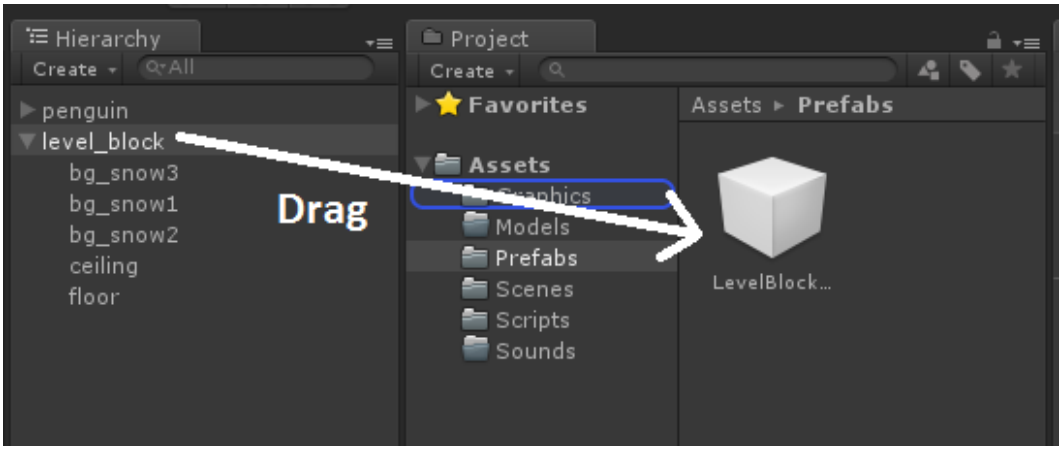

Hierarchy
Create
All
ceiling
penguin
Main Camera
rocketFire
floor
bg_snow1
bg_snow2
bg_snow3
Drag
Inspector
Main Camera
Static
Tag
MainCamera
Layer
Default
Transform
Position
X 3.75
Y 0
Z -10
Rotation
X 0
Y 0
Z 0
Scale
X 1
Y 1
Z 1
Camera
GUI Layer
Flare Layer
Audio Listener
Camera Follow (Script)
Script
CameraFollow
Target Object
penguin
Add Component

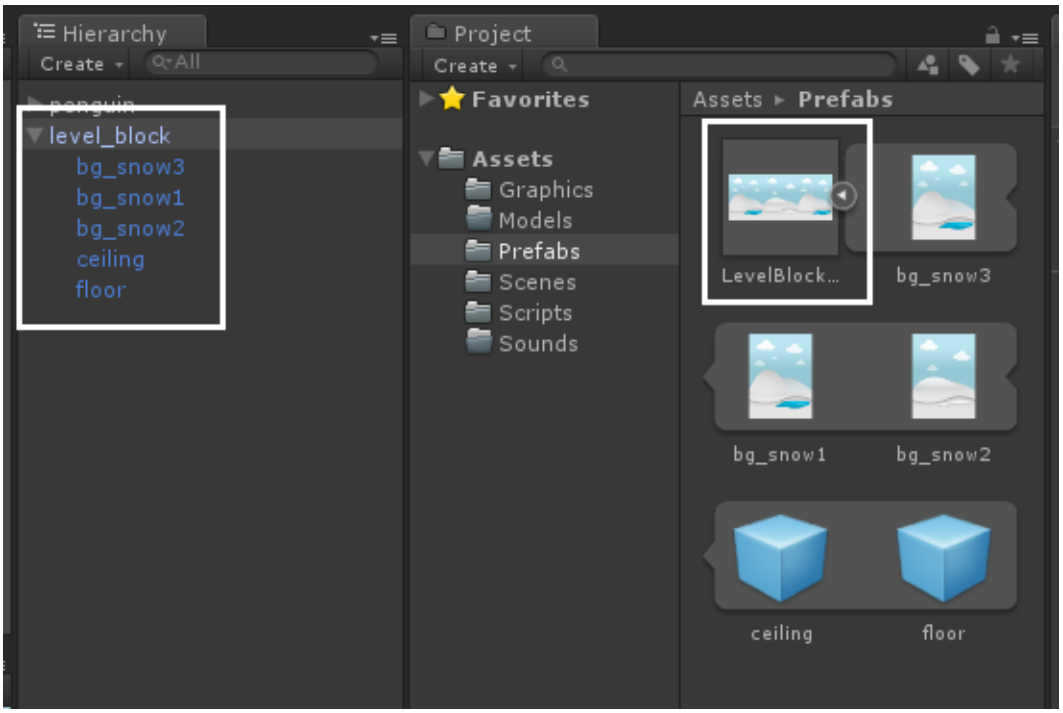

Project
Create
Favorites
Assets
Graphics
Models
Prefabs
Scenes
Scripts
Sounds
Assets ▸ Prefabs
BoxPrefab

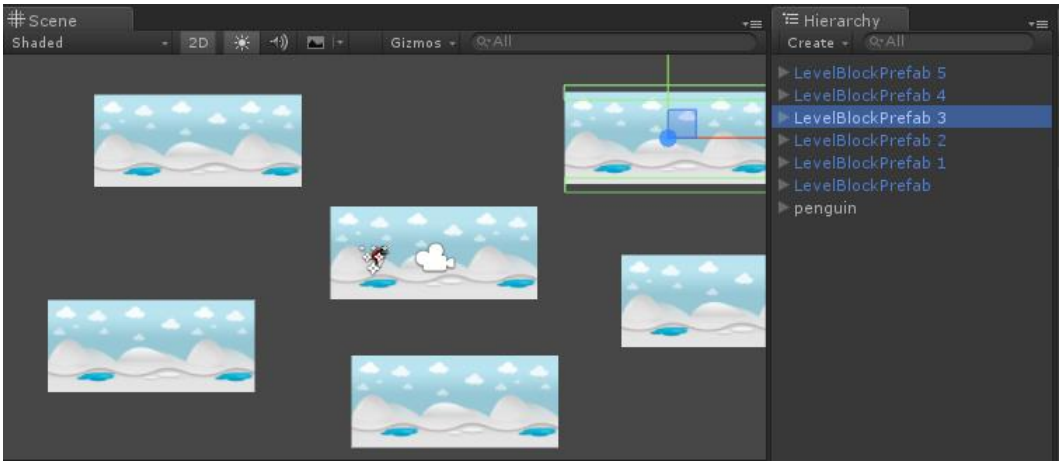

Hierarchy
Inspector
Create
All
ceiling
penguin
Main Camera
rocketFire
floor
bg_snow1
bg_snow2
bg_snow3
Copy
Paste
Rename
Duplicate
Delete
Select Prefab
Create Empty
3D Object
2D Object
Light
Audio
UI
Particle System
Camera


Hierarchy
Create
leve_block
ceiling
floor
bg_snow3
bg_snow1
bg_snow2
Scene
Game
Shaded
2D
Gizmos


Hierarchy
Create
penguin
leve_block
Project
Create
Favorites
Assets
Graphics
Models
Prefab
Scene
Script
Sound
Assets ▸ Prefabs
Inspector
Prefabs
Open
Create
Show in Explorer
Open
Delete
Import New Asset...
Import Package
Export Package...
Find References In Scene
Select Dependencies
Refresh Ctrl+R
Reimport
Reimport All
Run API Updater...
Sync MonoDevelop Project
Folder
C# Script
Javascript
Shader
Compute Shader
Prefab
Audio Mixer
Material
Lens Flare
Render Texture
Lightmap Parameters
Animator Controller
Animation
Animator Override Controller
Avatar Mask

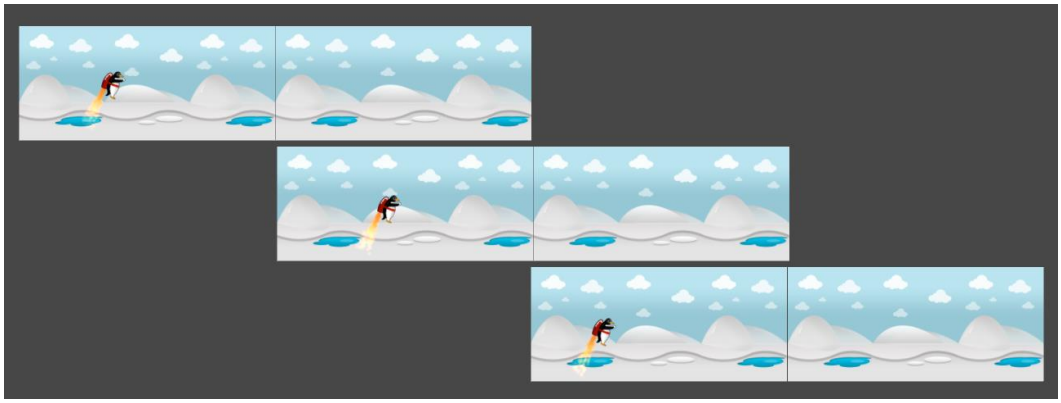

Hierarchy
Create
All
penguin
level_block
bg_snow3
bg_snow1
bg_snow2
ceiling
floor
Drag
Project
Create
Favorites
Assets
Graphics
Models
Prefabs
Scenes
Scripts
Sounds
Assets ▸ Prefabs
LevelBlock...

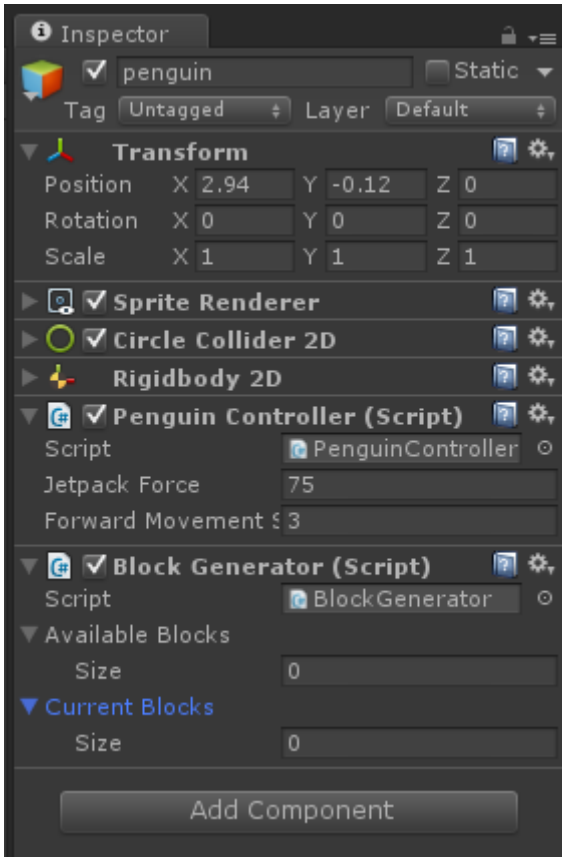

Hierarchy
Create
All
level_block
bg_snow3
bg_snow1
bg_snow2
ceiling
floor
Project
Create
Favorites
Assets
Graphics
Models
Prefabs
Scenes
Scripts
Sounds
Assets ▸ Prefabs
LevelBlock...
bg_snow3
bg_snow1
bg_snow2
ceiling
floor


Scene
Shaded
2D
Gizmos
All
Hierarchy
Create
All
LevelBlockPrefab 5
LevelBlockPrefab 4
LevelBlockPrefab 3
LevelBlockPrefab 2
LevelBlockPrefab 1
LevelBlockPrefab
penguin

1
Width

2
Width

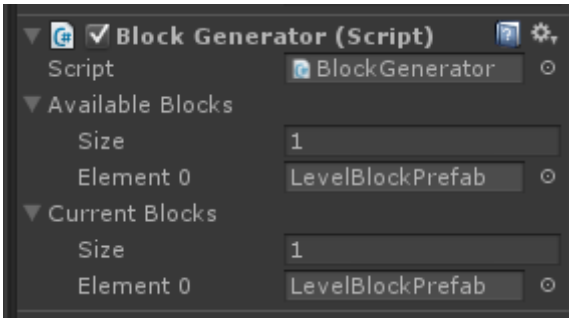


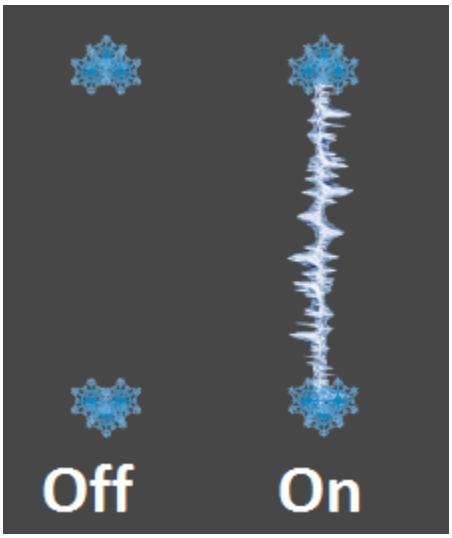


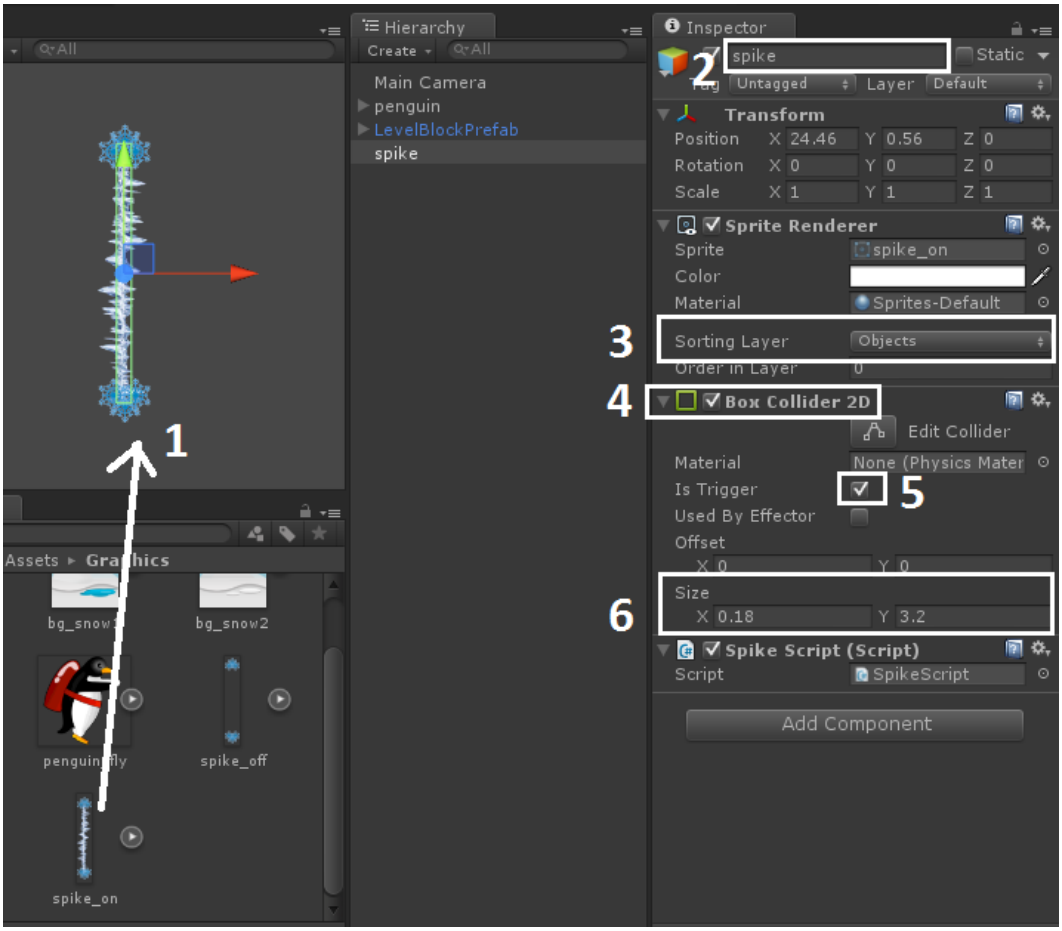

```
// Use this for initialization
void Start () {
    float height = 2.0f * Camera.main.orthographicSize;
    screenWidthInPoints = height * Camera.main.aspect;
}
```

```
void AddBlock(float farhtestBlockEndX)
{
    //1
    int randomBlockIndex = Random.Range(0, availableBlocks.Length);

    //2
    GameObject room = (GameObject)Instantiate(availableBlocks[randomBlockIndex]);

    //3
    float roomWidth = room.transform.FindChild("floor").localScale.x;

    //4
    float roomCenter = farhtestBlockEndX + roomWidth * 0.5f;

    //5
    room.transform.position = new Vector3(roomCenter, 0, 0);

    //6
    currentBlocks.Add(room);
}
```

```
void GenerateBlockIfRequired()
{
    //1
    List<GameObject> blocksToRemove = new List<GameObject>();
    //2
    bool addBlocks = true;
    //3
    float playerX = transform.position.x;
    //4
    float removeBlockX = playerX - screenWidthInPoints;
    //5
    float addBlockX = playerX + screenWidthInPoints;
    //6
    float farthestBlockEndX = 0;

    foreach(var block in currentBlocks)
    {
        //7
        float BlockWidth = block.transform.FindChild("floor").localScale.x;
        float BlockStartX = block.transform.position.x - (roomWidth * 0.5f);
        float BlockEndX = BlockStartX + BlockWidth;
        //8
        if (BlockStartX > addBlockX)
            addBlocks = false;
        //9
        if (BlockEndX < removeBlockX)
            blocksToRemove.Add(block);
        //10
        farthestBlockEndX = Mathf.Max(farthestBlockEndX, BlockEndX);
    }
    //11
    foreach(var room in blocksToRemove)
    {
        currentBlocks.Remove(room);
        Destroy(room);
    }
    //12
    if (addBlocks)
        AddBlock(farthestBlockEndX);
}
```


Block Generator (Script)
Script
BlockGenerator
Available Blocks
Size
1
Element 0
LevelBlockPrefab
Current Blocks
Size
1
Element 0
LevelBlockPrefab

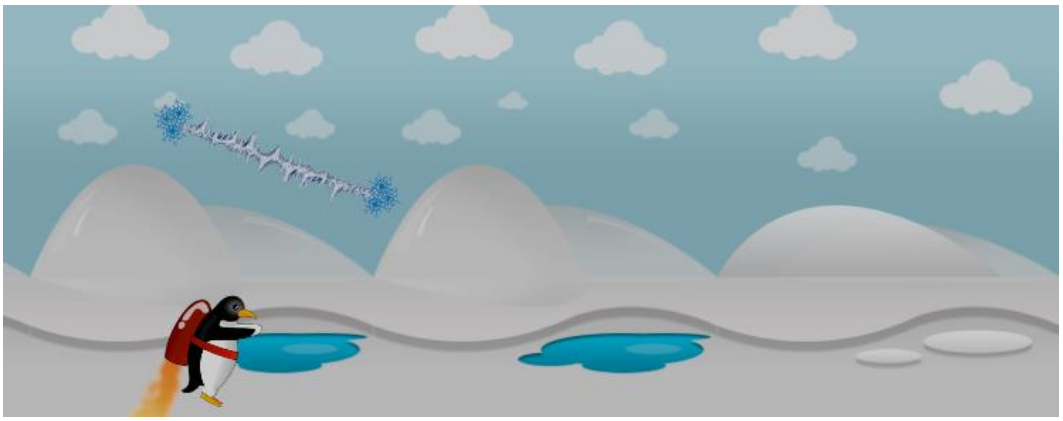

Off
On



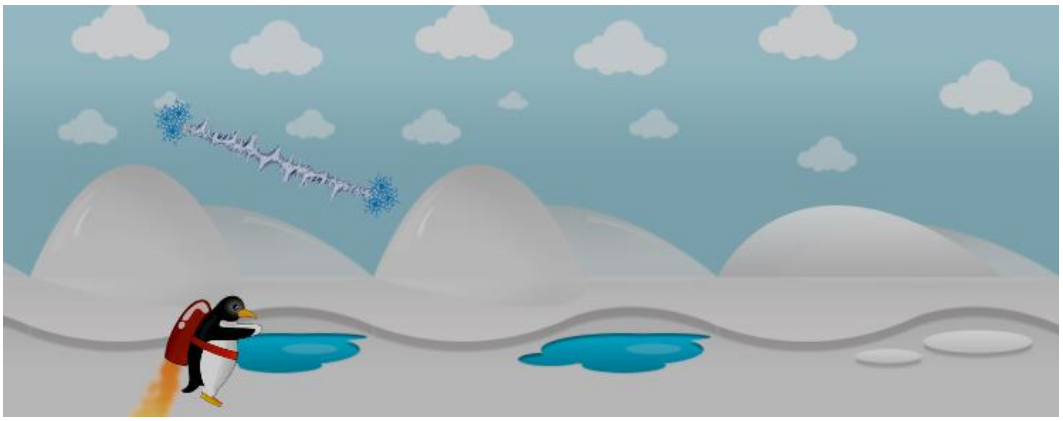

```
//1
public Sprite spikeOnSprite;
public Sprite spikeOffSprite;

//2
public float interval = 0.5f;
public float rotationSpeed = 0.0f;

//3
private bool isLaserOn = true;
private float timeUntilNextToggle;
```

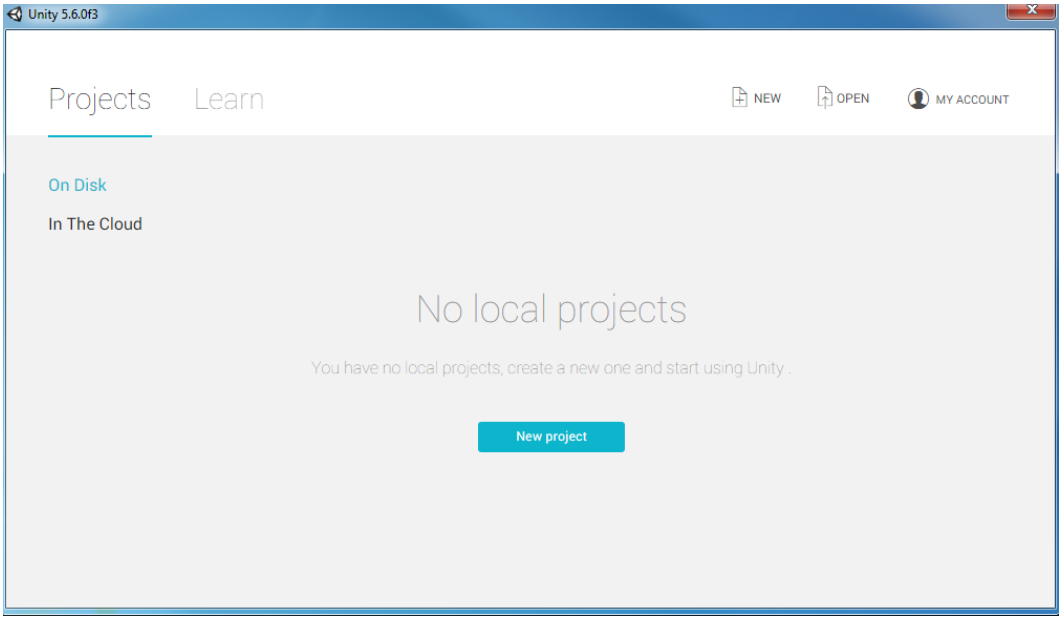
```
// Use this for initialization
void Start () {
    timeUntilNextToggle = interval;
}
```

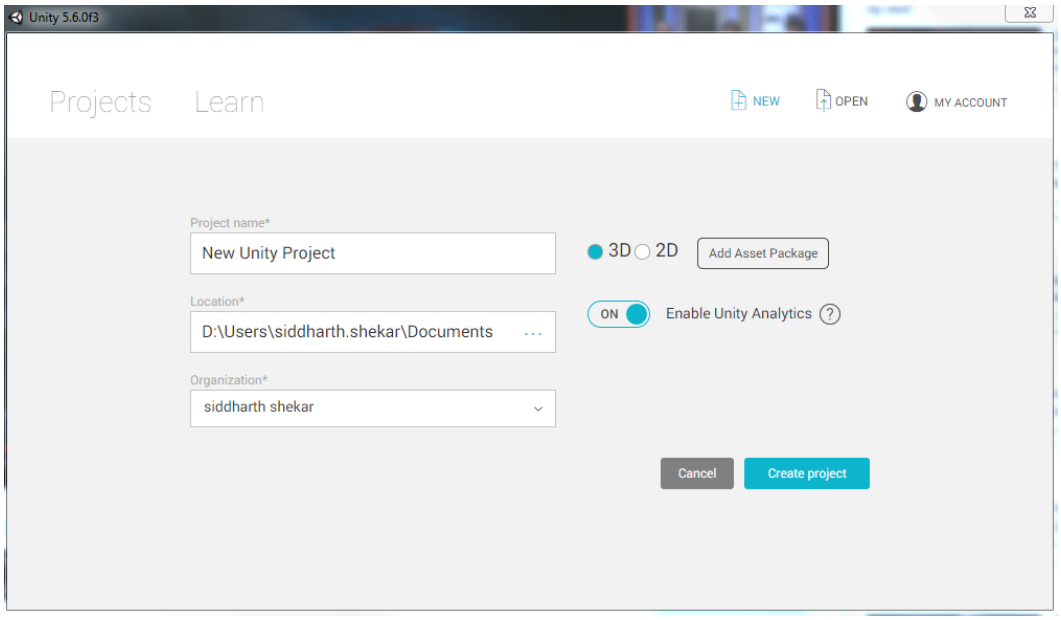
```
void FixedUpdate () {
    timeUntilNextToggle -= Time.fixedDeltaTime;
    if (timeUntilNextToggle <= 0) {
        isSpikeOn = !isSpikeOn;
        GetComponent<Collider2D>().enabled = isSpikeOn;
        SpriteRenderer spriteRenderer = ((SpriteRenderer)this.GetComponent<Renderer>());
        if (isSpikeOn)
            spriteRenderer.sprite = spikeOnSprite;
        else
            spriteRenderer.sprite = spikeOffSprite;
        timeUntilNextToggle = interval;
    }
    transform.RotateAround(transform.position, Vector3.forward, rotationSpeed * Time. fixedDeltaTime);
}
```

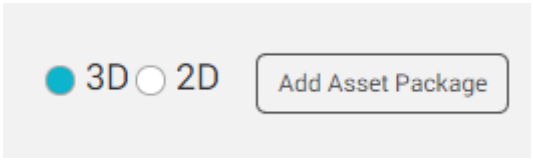


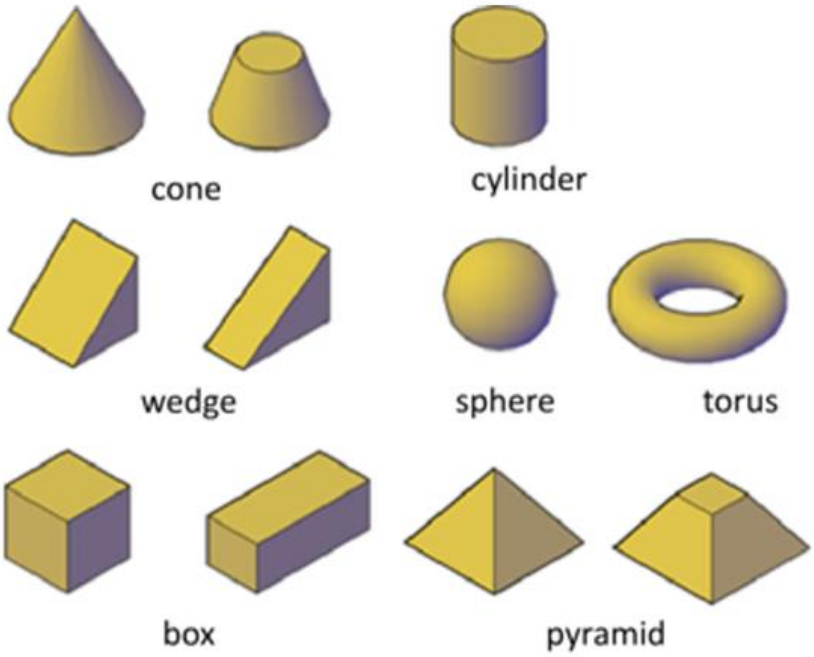
Chapter 3: Adding Player Character for an Action Fighting Game

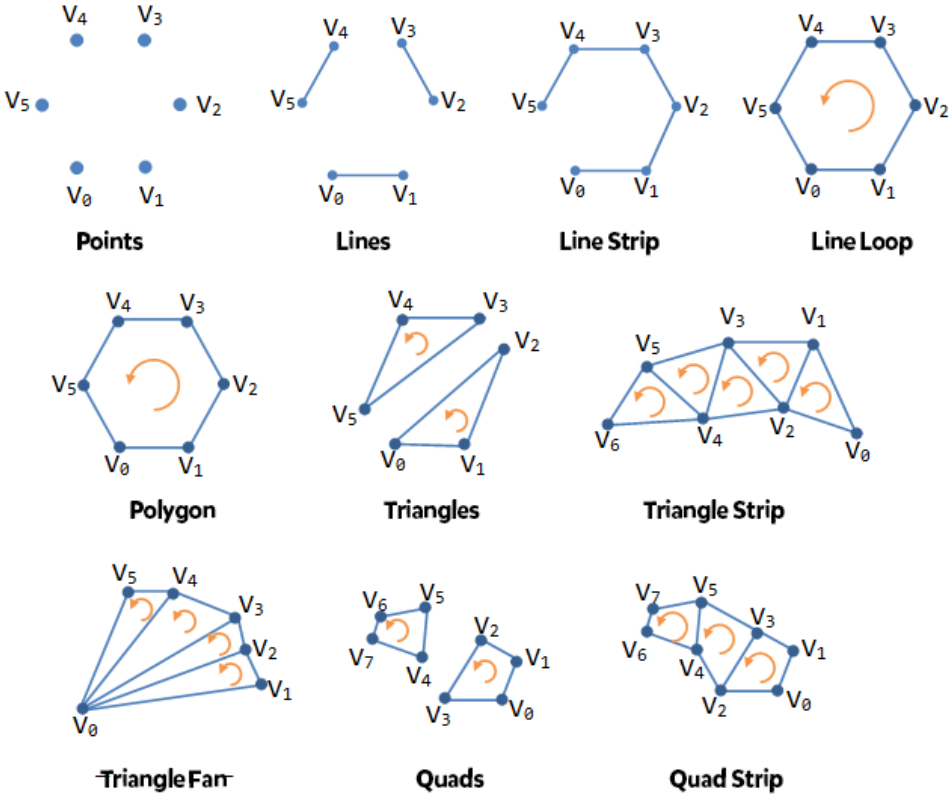


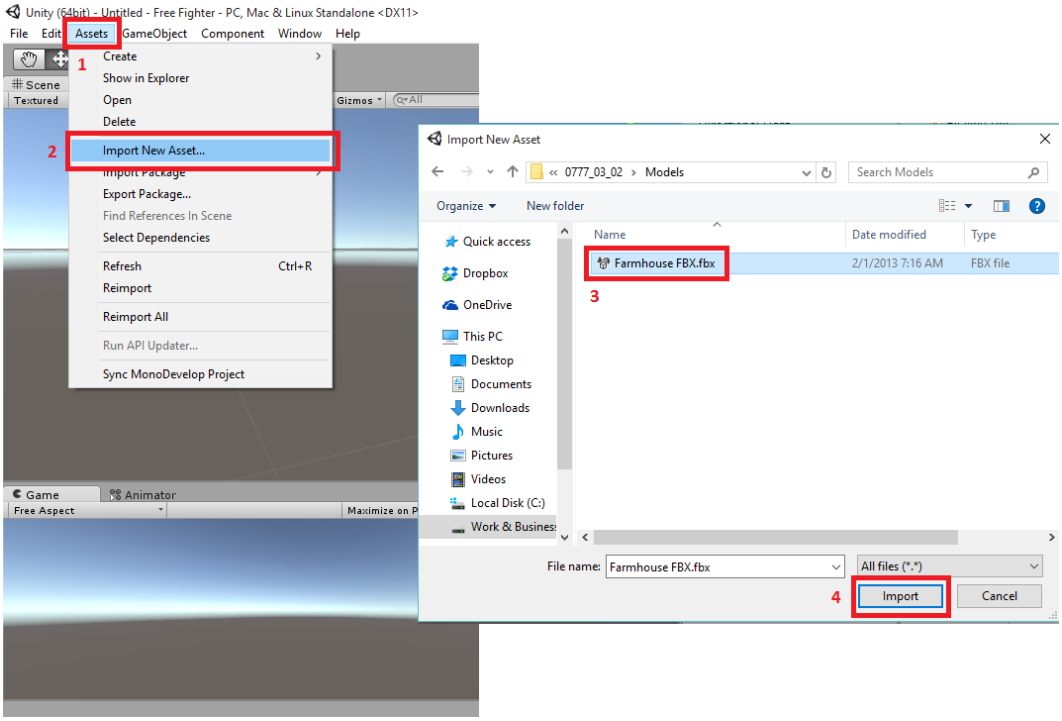


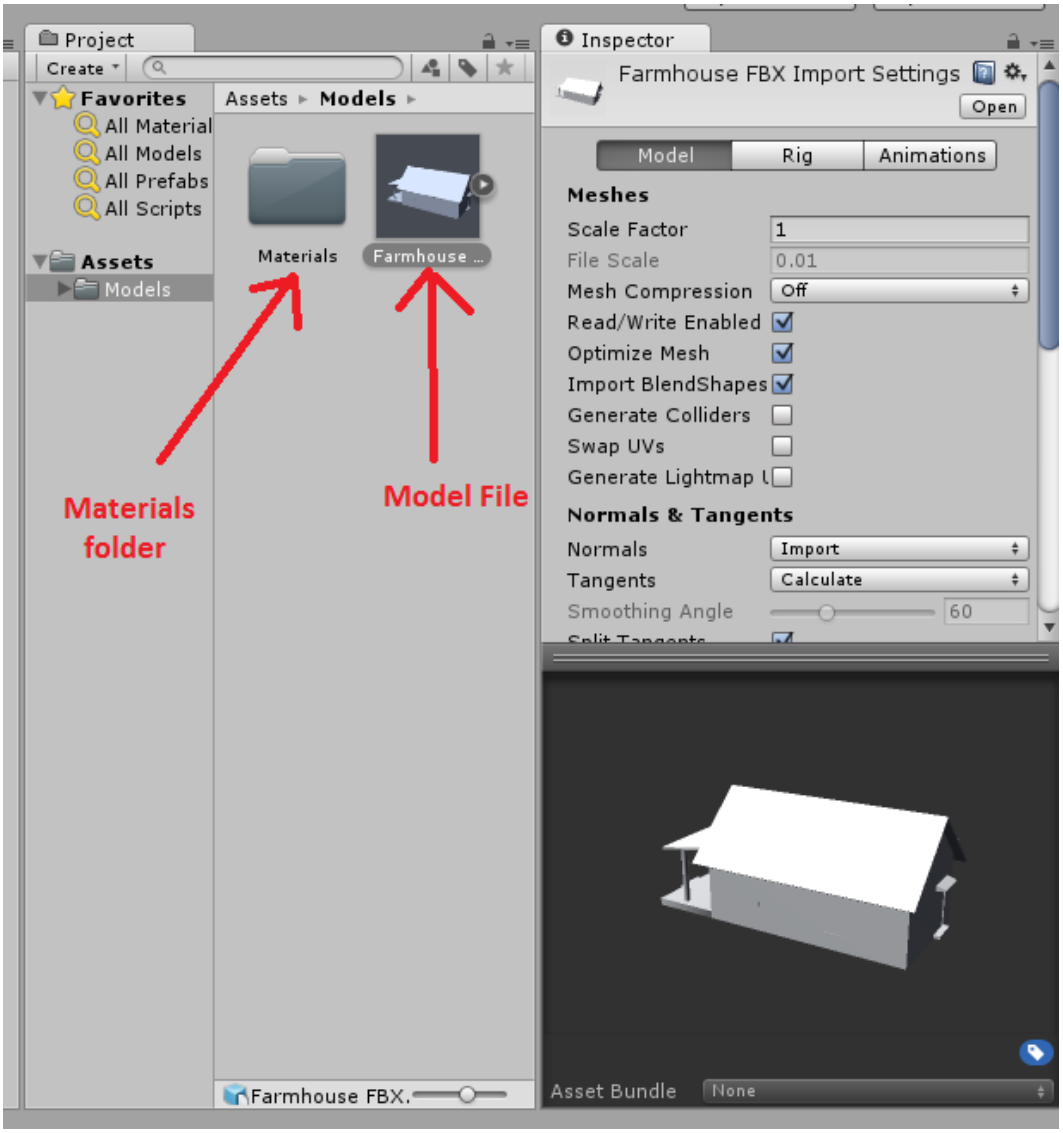

Unity 5.6.0f3
Projects
Learn
NEW
OPEN
MY ACCOUNT
Project name*
New Unity Project
3D
2D
Add Asset Package
Location*
D:\Users\siddharth.shekar\Documents
ON
Enable Unity Analytics
Organization*
siddharth shekar
Cancel
Create project

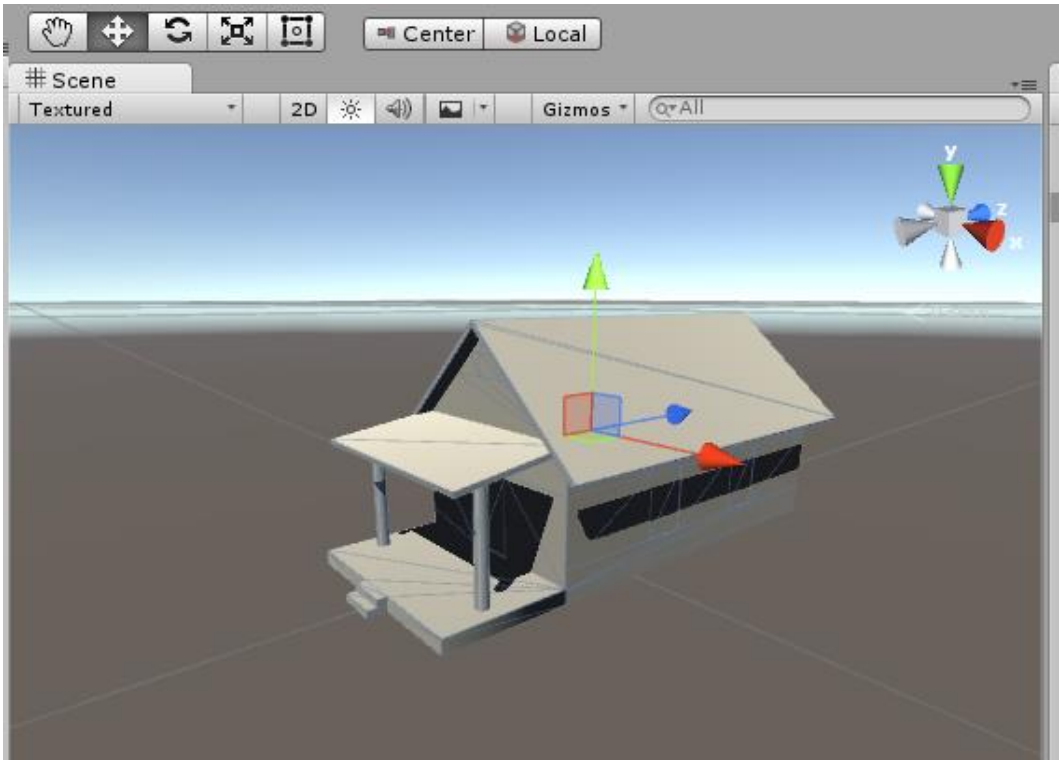

3D
2D
Add Asset Package

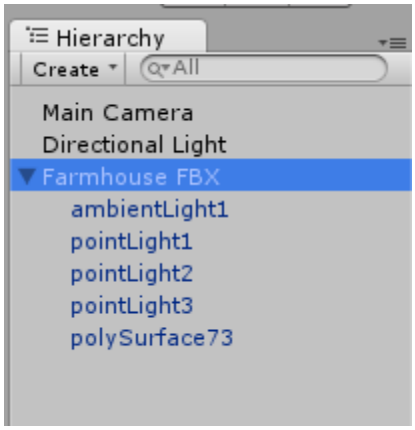

cone
cylinder
wedge
sphere
torus
box
pyramid

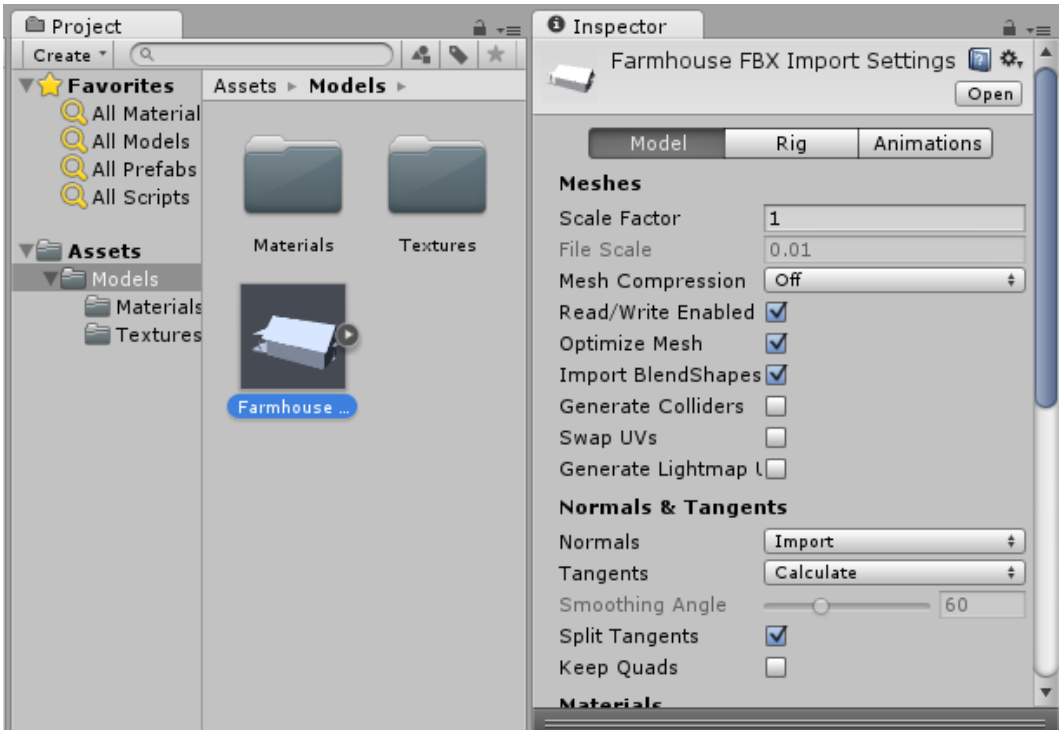

V4 V3
V5 V2
V0 V1
Points
Lines
Line Strip
Line Loop
Polygon
Triangles
Triangle Strip
V6 V7
Triangle Fan
Quads
Quad Strip


Unity (64bit) - Untitled - Free Fighter - PC, Mac & Linux Standalone <DX11>
File
Edit
Assets
GameObject
Component
Window
Help
1
Create
Show in Explorer
Open
Delete
2
Import New Asset...
Import Package
Export Package...
Find References In Scene
Select Dependencies
Refresh
Ctrl+R
Reimport
Reimport All
Run API Updater...
Sync MonoDevelop Project
Scene
Textured
Gizmos
Game
Animator
Free Aspect
Import New Asset
0777_03_02 › Models
Search Models
Organize
New folder
Quick access
Dropbox
OneDrive
This PC
Desktop
Documents
Downloads
Music
Pictures
Videos
Local Disk (C:)
Work & Busines
Name
Date modified
Type
Farmhouse FBX.fbx
2/1/2013 7:16 AM
FBX file
3
File name:
Farmhouse FBX.fbx
All files (*.*)
4
Import
Cancel

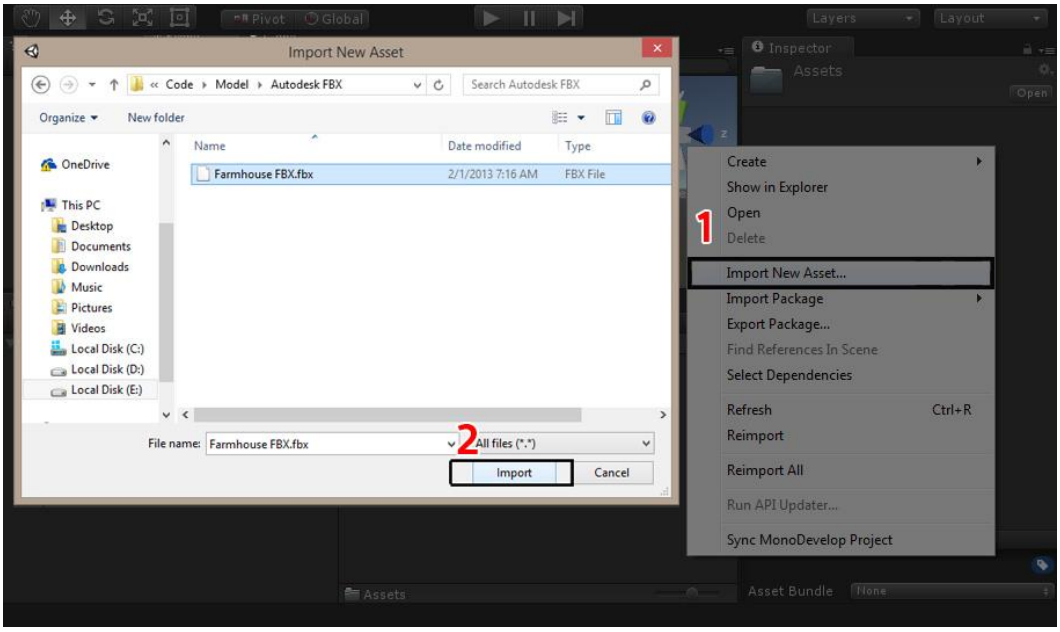

Project
Create
Favorites
All Material
All Models
All Prefabs
All Scripts
Assets
Models
Assets ▸ Models ▸
Materials
Farmhouse ...
Materials folder
Model File
Farmhouse FBX.
Inspector
Farmhouse FBX Import Settings
Open
Model
Rig
Animations
Meshes
Scale Factor
1
File Scale
0.01
Mesh Compression
Off
Read/Write Enabled
Optimize Mesh
Import BlendShapes
Generate Colliders
Swap UVs
Generate Lightmap
Normals & Tangents
Normals
Import
Tangents
Calculate
Smoothing Angle
60
Asset Bundle
None

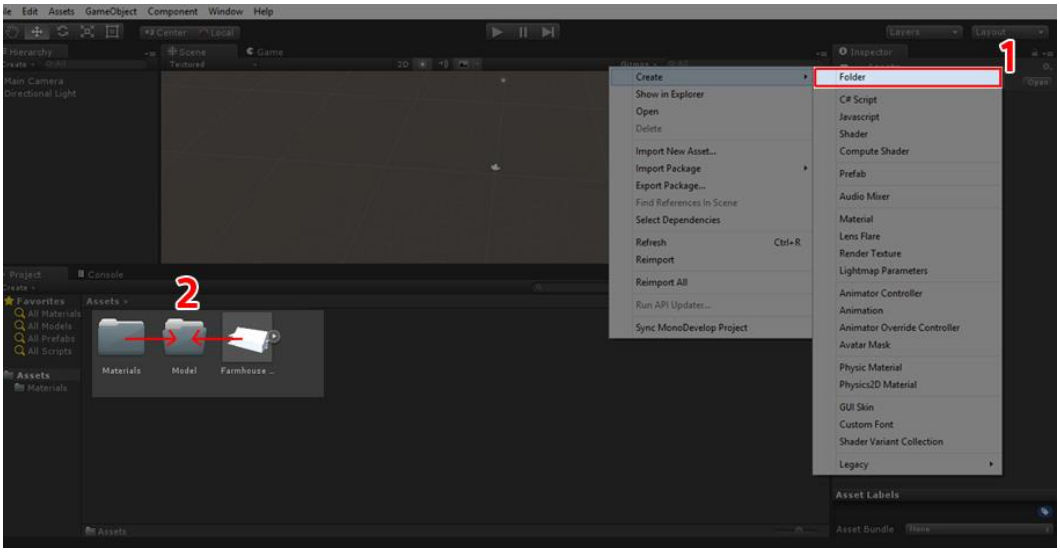

Center
Local
Scene
Textured
2D
Gizmos
All
y
z
x

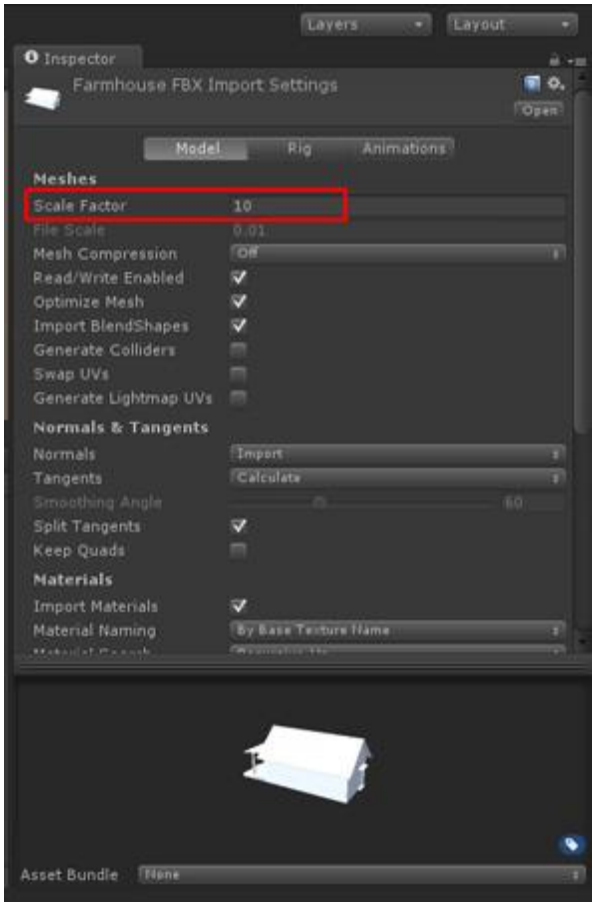

Hierarchy
Create
All
Main Camera
Directional Light
Farmhouse FBX
ambientLight1
pointLight1
pointLight2
pointLight3
polySurface73

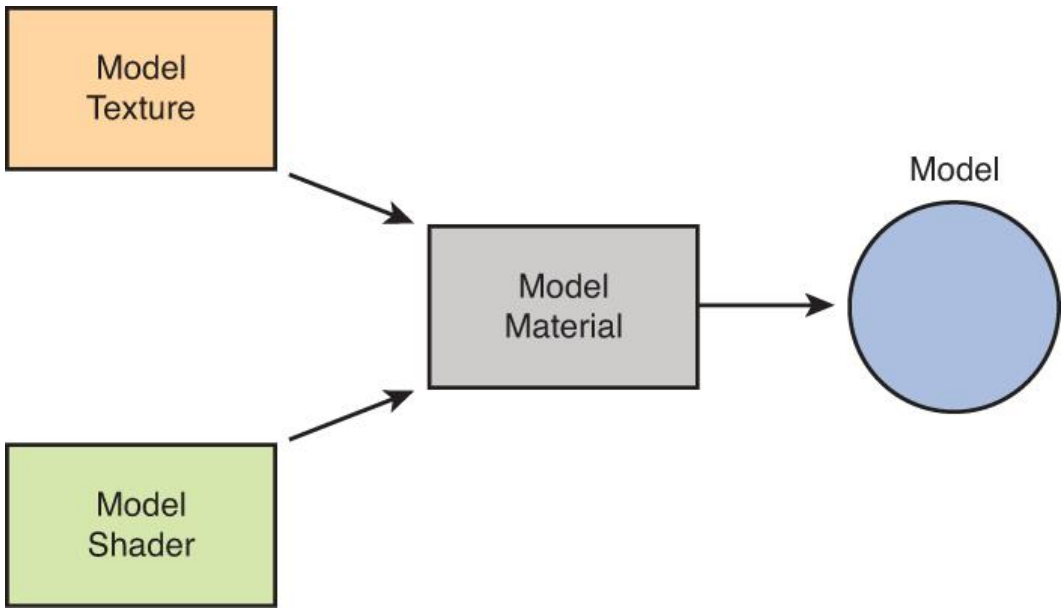


	Mash and Animations			
	Mash	**Mash Animation**	**Rig**	**Bone Animation**
OBJ	Yes	No	No	No
FBX	Yes	Yes	Yes	Yes


Import New Asset
Code ▸ Model ▸ Autodesk FBX
Search Autodesk FBX
Organize
New folder
Name
Date modified
Type
Farmhouse FBX.fbx
2/1/2013 7:16 AM
FBX File
OneDrive
This PC
Desktop
Documents
Downloads
Music
Pictures
Videos
Local Disk (C:)
Local Disk (D:)
Local Disk (E:)
File name: Farmhouse FBX.fbx
All files (*.*)
Import
Cancel
2
1
Create
Show in Explorer
Open
Delete
Import New Asset...
Import Package
Export Package...
Find References In Scene
Select Dependencies
Refresh Ctrl+R
Reimport
Reimport All
Run API Updater...
Sync MonoDevelop Project
Inspector
Assets
Asset Bundle

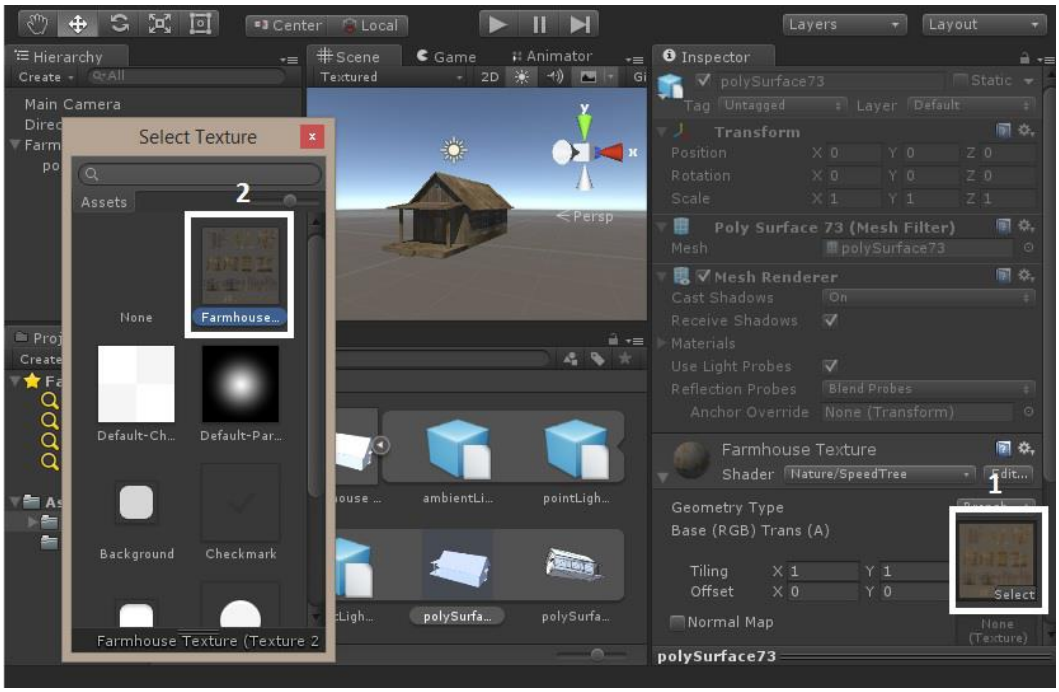

1
2
Create
Folder
C# Script
Javascript
Shader
Compute Shader
Prefab
Audio Mixer
Material
Lens Flare
Render Texture
Lightmap Parameters
Animator Controller
Animation
Animator Override Controller
Avatar Mask
Physic Material
Physics2D Material
GUI Skin
Custom Font
Shader Variant Collection
Legacy
Show in Explorer
Open
Delete
Import New Asset...
Import Package
Export Package...
Find References In Scene
Select Dependencies
Refresh Ctrl+R
Reimport
Reimport All
Run API Updater...
Sync MonoDevelop Project
Materials
Model
Farmhouse ...
Asset Labels

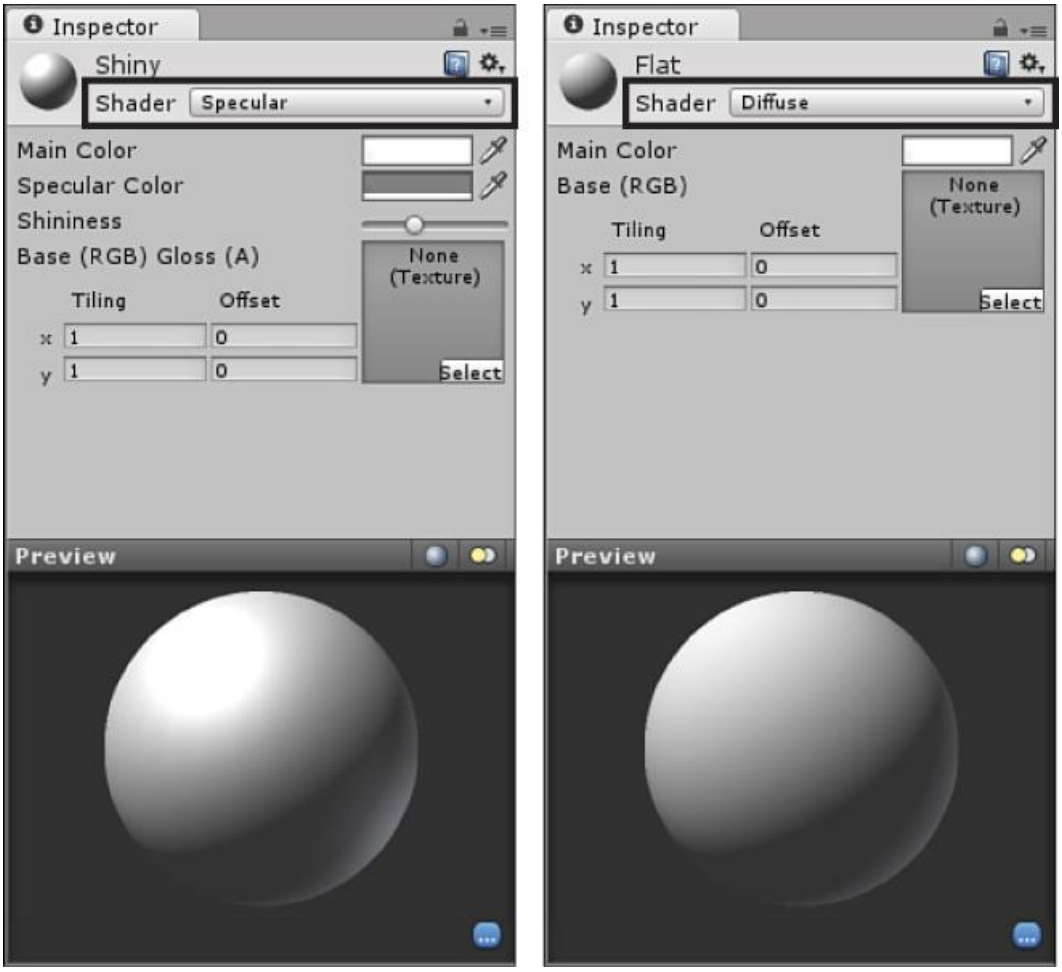

Layers
Layout
Inspector
Farmhouse FBX Import Settings
Open
Model
Rig
Animations
Meshes
Scale Factor
10
File Scale
0.01
Mesh Compression
Off
Read/Write Enabled
Optimize Mesh
Import BlendShapes
Generate Colliders
Swap UVs
Generate Lightmap UVs
Normals & Tangents
Normals
Import
Tangents
Calculate
Smoothing Angle
60
Split Tangents
Keep Quads
Materials
Import Materials
Material Naming
By Base Texture Name
Asset Bundle
None

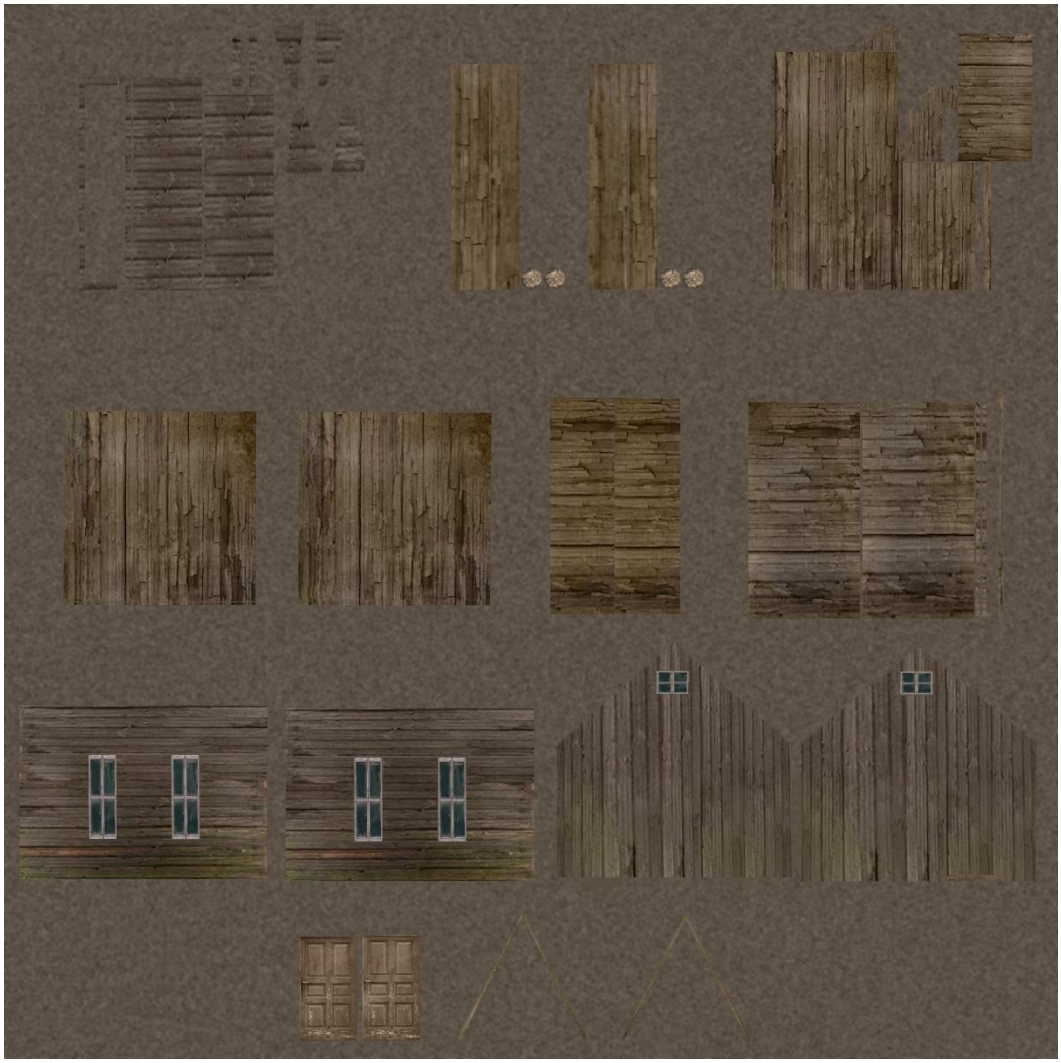

Model
Texture
Model
Material
Model
Shader
Model

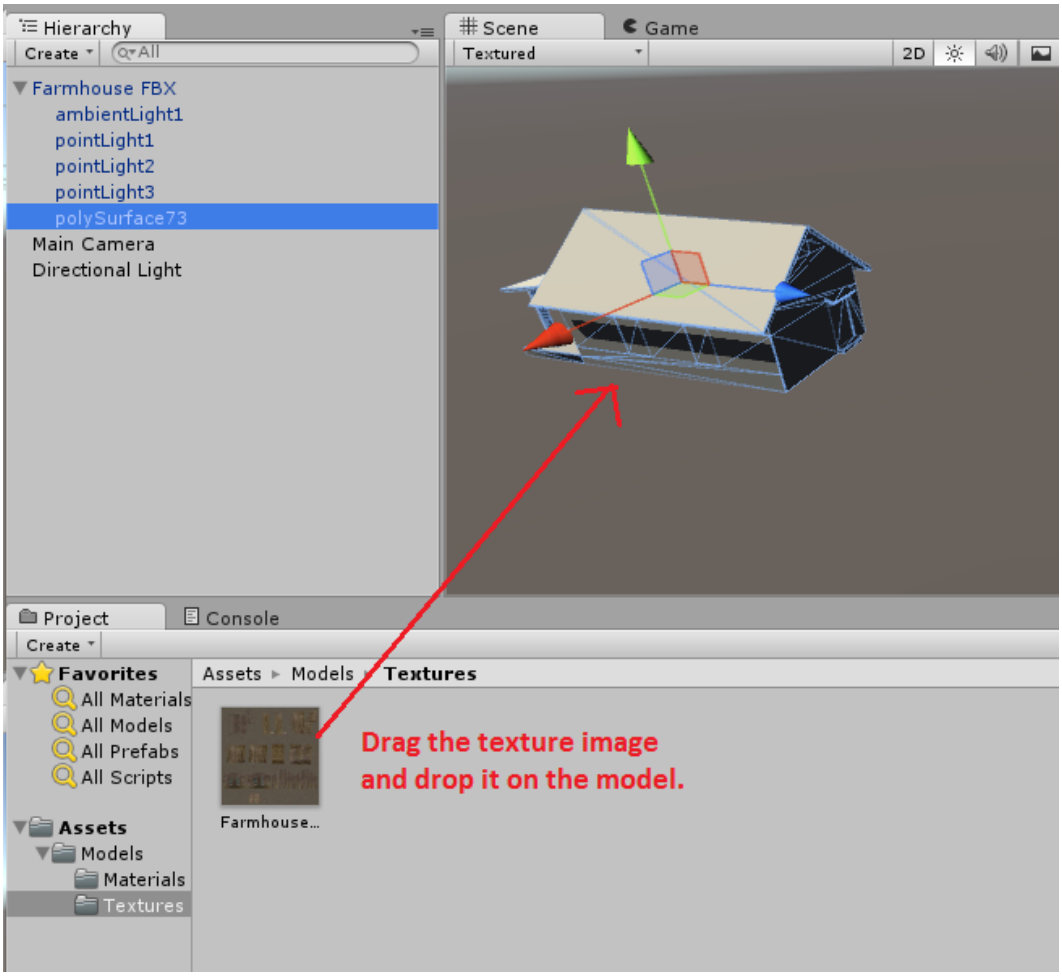
3-D Model
Texture
Final Model

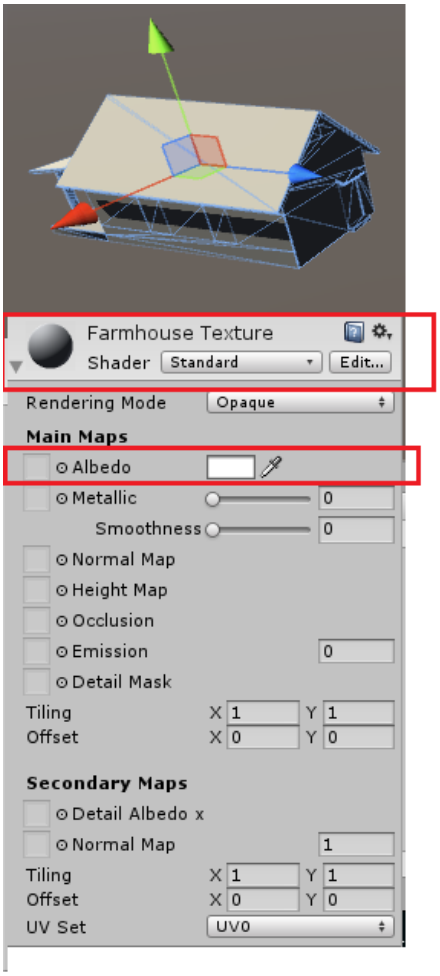
Property:		Function:
Texture Type		Select this to set basic parameters depending on the purpose of your texture.
	Texture	This is the most common setting used for all the textures in general.
	Normal Map	Select this to turn the color channels into a format suitable for real-time normal mapping. See the Details section at the end of the page.
	Editor GUI	Use this if your texture is going to be used on any HUD/GUI Controls.
	Sprite (2D and UI)	This must be selected if your texture will be used in a 2D game as a Sprite.
	Cubemap	Cubemap, often used to create reflections. See Cubemap Textures for more info.
	Cookie	This sets up your texture with the basic parameters used for the Cookies of your lights
	Advanced	Select this when you want to have specific parameters on your texture and you want to have total control over your texture.




Inspector
Shiny
Shader
Specular
Main Color
Specular Color
Shininess
Base (RGB) Gloss (A)
None
(Texture)
Tiling
Offset
x
1
0
y
1
0
Select
Preview
Inspector
Flat
Shader
Diffuse
Main Color
Base (RGB)
None
(Texture)
Tiling
Offset
x
1
0
y
1
0
Select
Preview

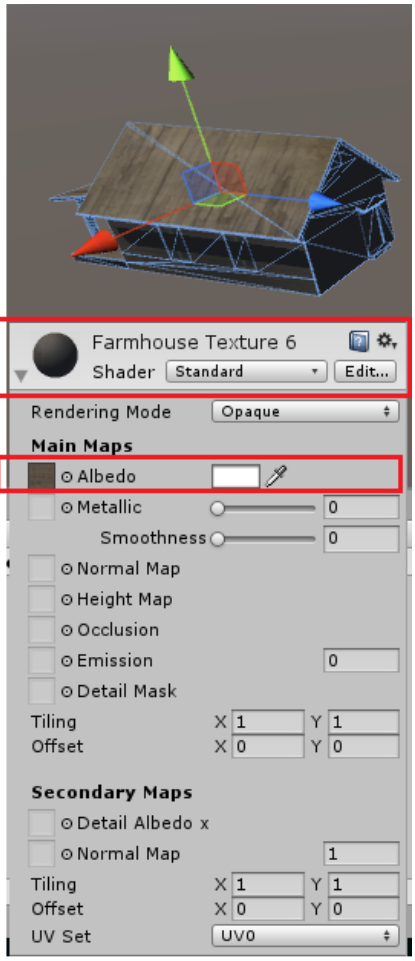



Hierarchy
Create
All
Farmhouse FBX
ambientLight1
pointLight1
pointLight2
pointLight3
polySurface73
Main Camera
Directional Light
Scene
Game
Textured
2D
Project
Console
Create
Favorites
All Materials
All Models
All Prefabs
All Scripts
Assets
Models
Materials
Textures
Assets ▸ Models ▸ Textures
Farmhouse...
Drag the texture image
and drop it on the model.



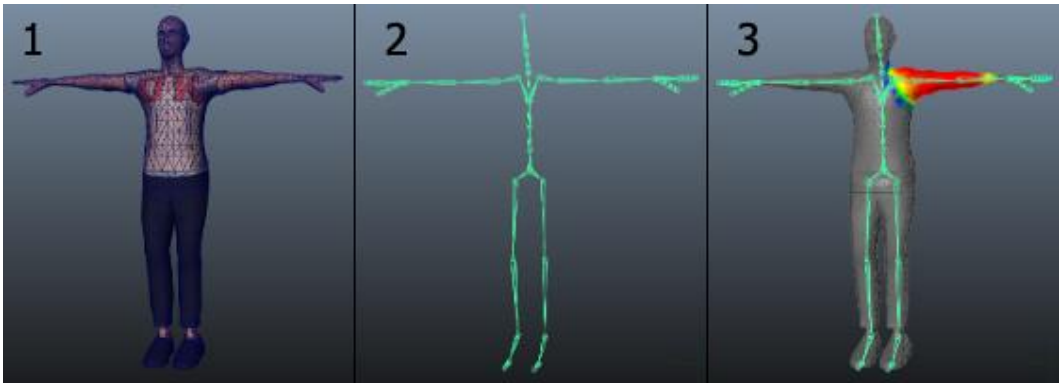
1

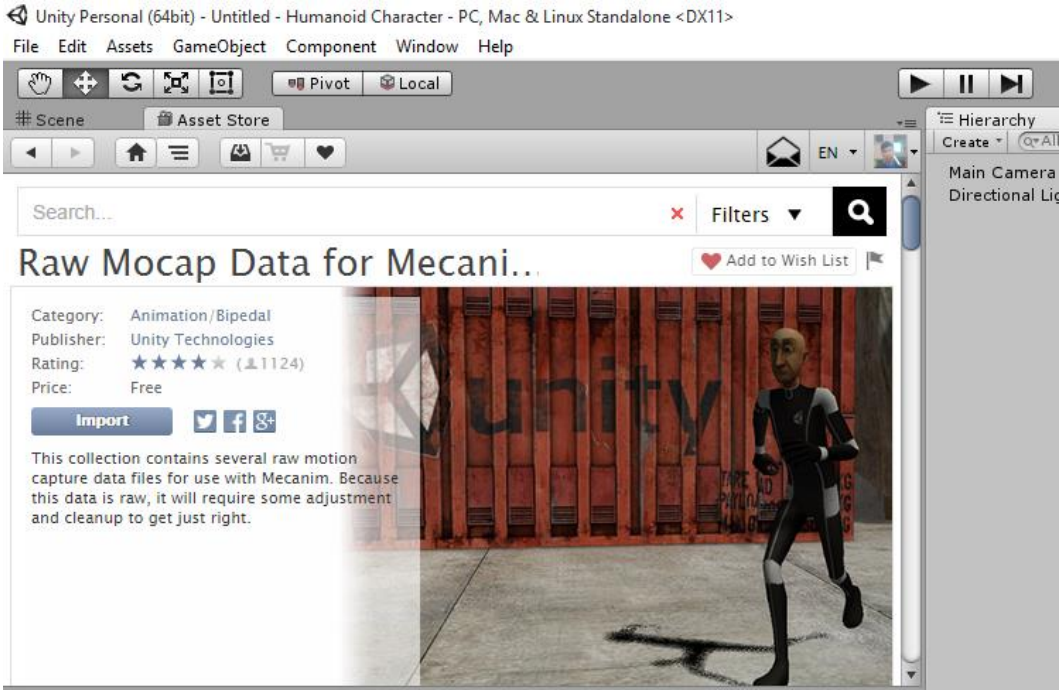
2

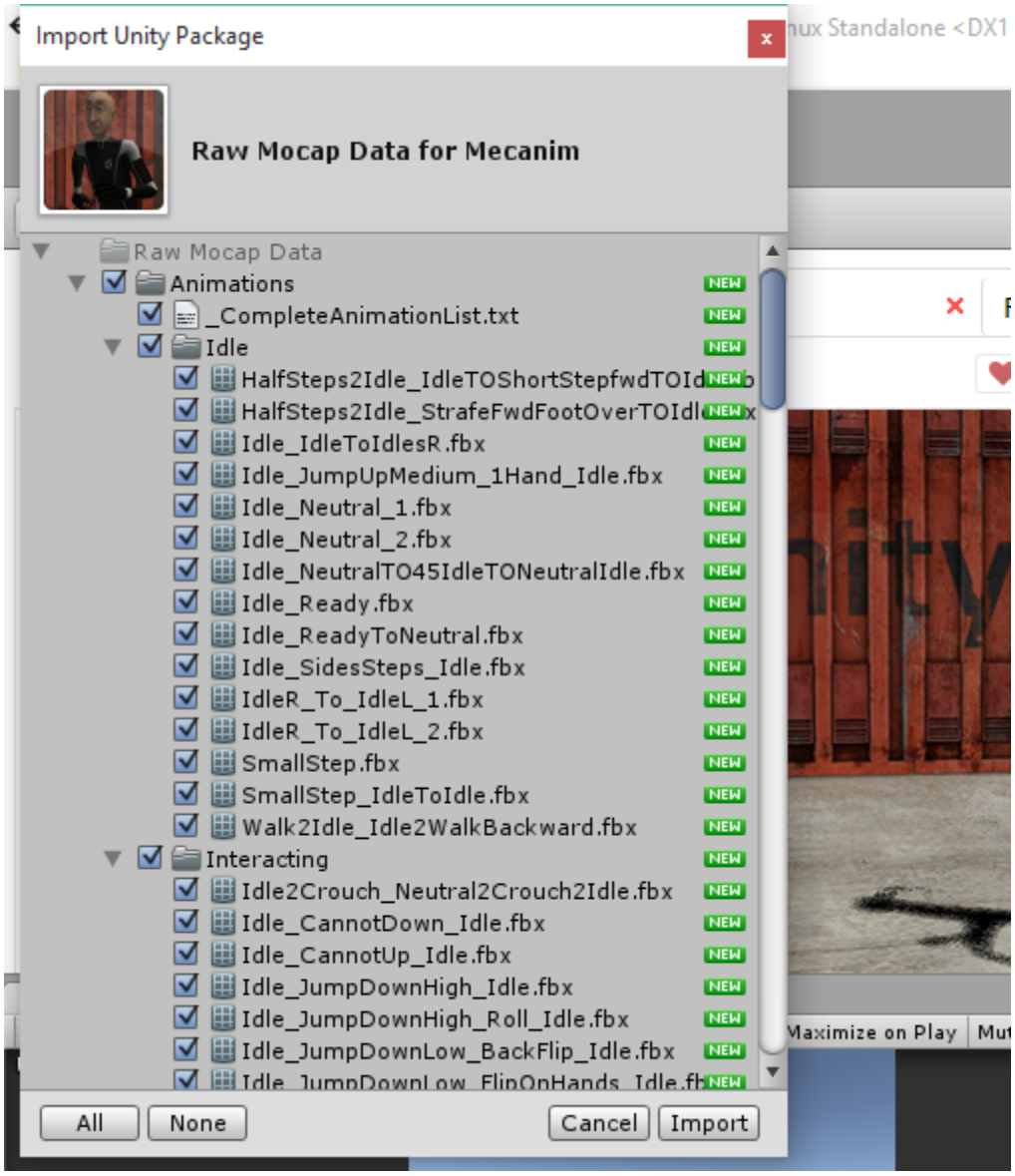


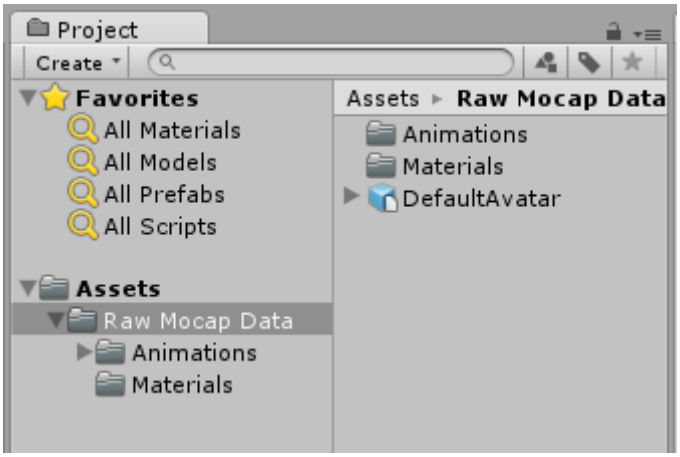
Before Texture

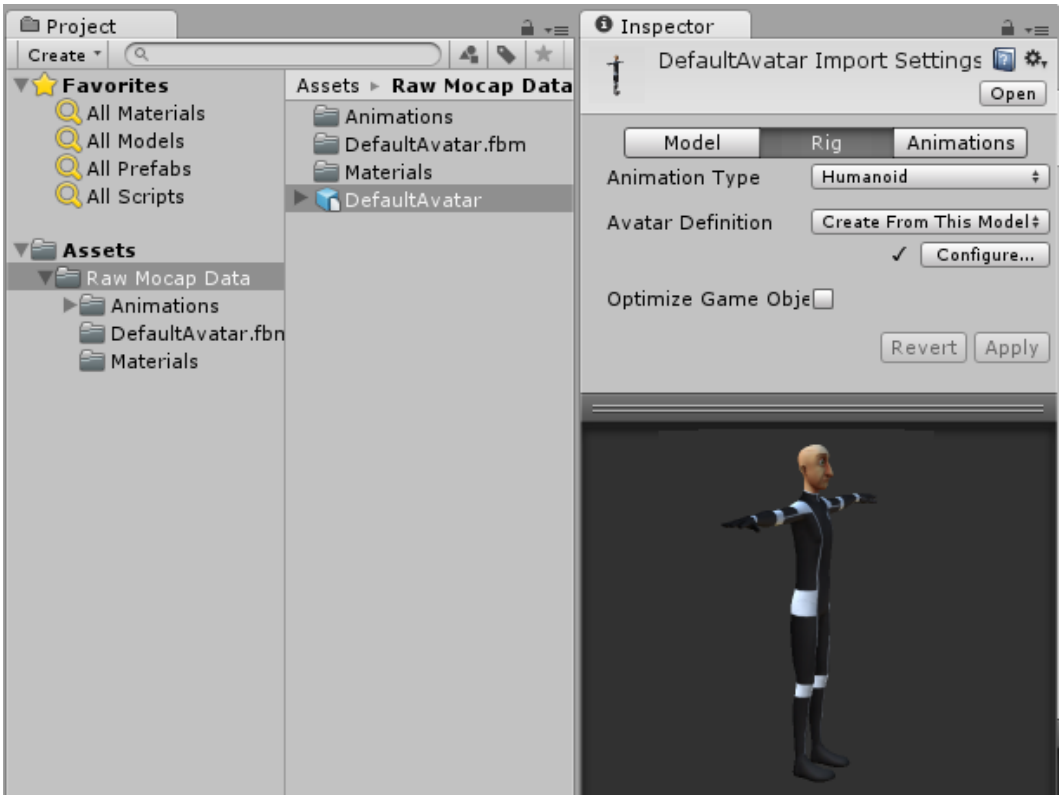
After Textures


1
2
3

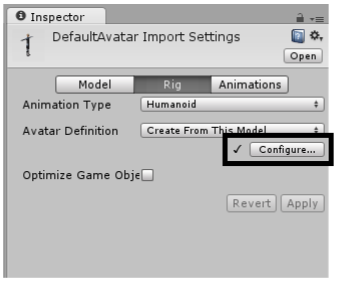

Unity Personal (64bit) - Untitled - Humanoid Character - PC, Mac & Linux Standalone <DX11>
File Edit Assets GameObject Component Window Help
Pivot Local
Scene
Asset Store
Hierarchy
Create
Main Camera
Directional Lig
EN
Search...
Filters
Raw Mocap Data for Mecani..
Add to Wish List
Category: Animation/Bipedal
Publisher: Unity Technologies
Rating: (1124)
Price: Free
Import
This collection contains several raw motion capture data files for use with Mecanim. Because this data is raw, it will require some adjustment and cleanup to get just right.


Import Unity Package
Raw Mocap Data for Mecanim
Raw Mocap Data
Animations
_CompleteAnimationList.txt
Idle
HalfSteps2Idle_IdleTOShortStepfwdTOId
HalfSteps2Idle_StrafeFwdFootOverTOIdl
Idle_IdleToIdlesR.fbx
Idle_JumpUpMedium_1Hand_Idle.fbx
Idle_Neutral_1.fbx
Idle_Neutral_2.fbx
Idle_NeutralTO45IdleTONeutralIdle.fbx
Idle_Ready.fbx
Idle_ReadyToNeutral.fbx
Idle_SidesSteps_Idle.fbx
IdleR_To_IdleL_1.fbx
IdleR_To_IdleL_2.fbx
SmallStep.fbx
SmallStep_IdleToIdle.fbx
Walk2Idle_Idle2WalkBackward.fbx
Interacting
Idle2Crouch_Neutral2Crouch2Idle.fbx
Idle_CannotDown_Idle.fbx
Idle_CannotUp_Idle.fbx
Idle_JumpDownHigh_Idle.fbx
Idle_JumpDownHigh_Roll_Idle.fbx
Idle_JumpDownLow_BackFlip_Idle.fbx
NEW
All
None
Cancel
Import
Maximize on Play

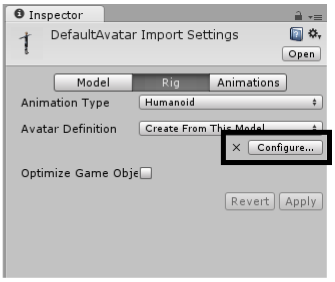

Project
Create
Favorites
All Materials
All Models
All Prefabs
All Scripts
Assets
Raw Mocap Data
Animations
Materials
Assets ▸ Raw Mocap Data
Animations
Materials
DefaultAvatar


Project
Create
Favorites
All Materials
All Models
All Prefabs
All Scripts
Assets
Raw Mocap Data
Animations
DefaultAvatar.fbn
Materials
Assets ▸ Raw Mocap Data
Animations
DefaultAvatar.fbm
Materials
DefaultAvatar
Inspector
DefaultAvatar Import Settings
Open
Model
Rig
Animations
Animation Type
Humanoid
Avatar Definition
Create From This Model
Configure...
Optimize Game Obje
Revert
Apply

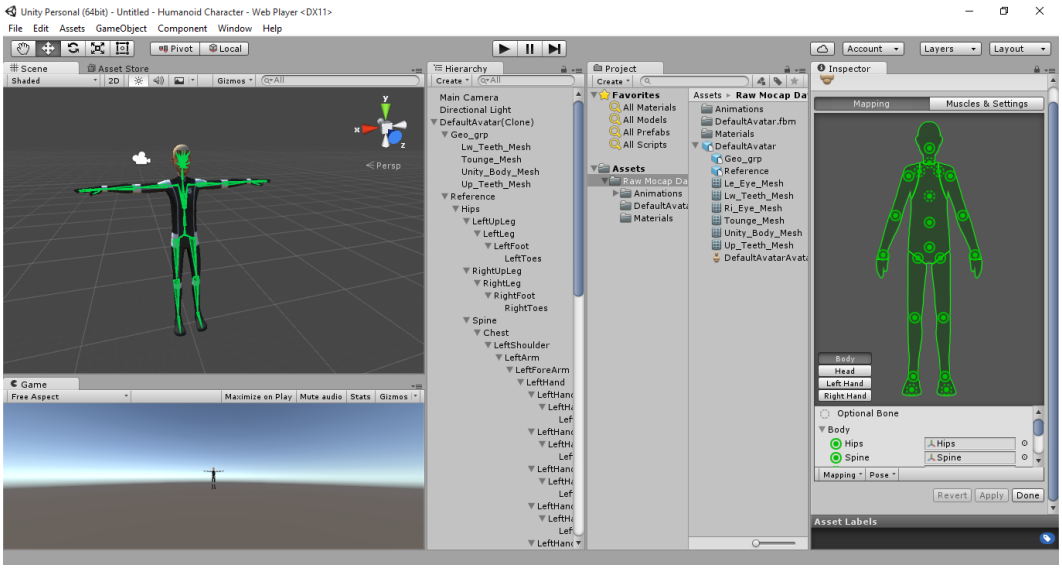
Not Configured Yet

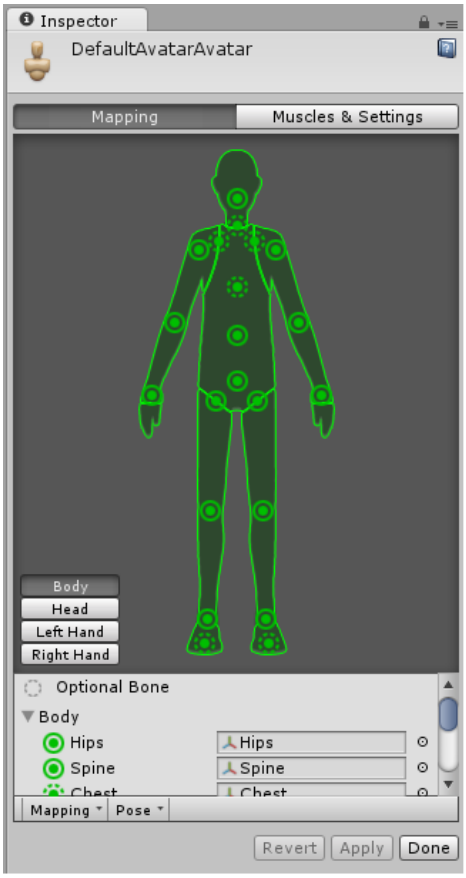


Configured Correctly

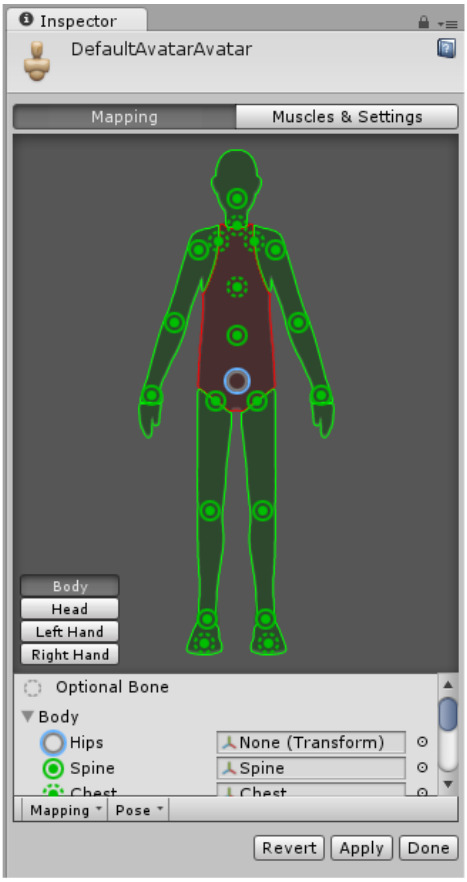


Error in Configuration

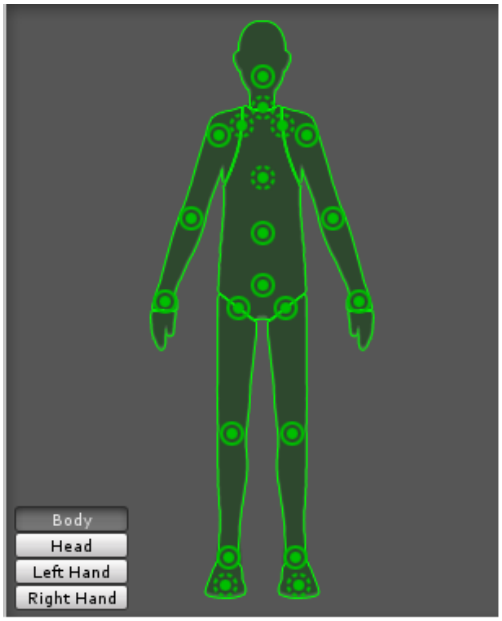




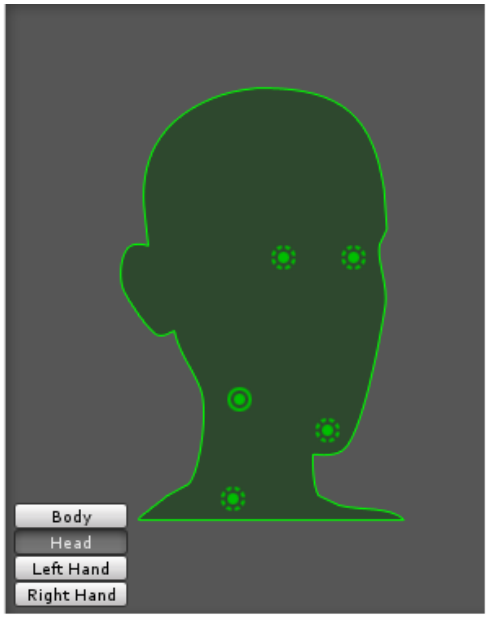
Correctly Configured Avatar



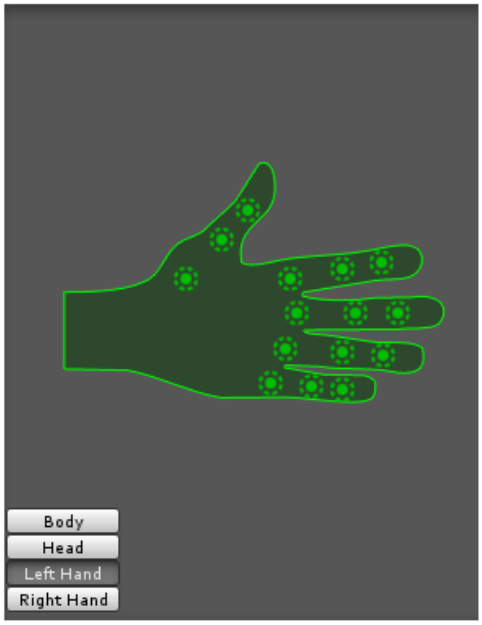
Incorrectly Configured Avatar



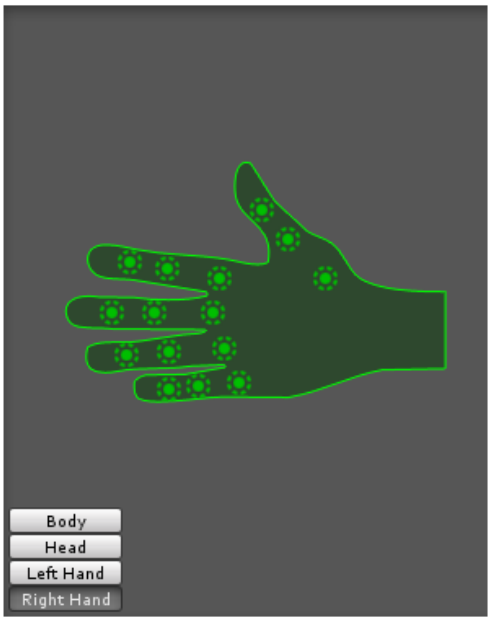
Body



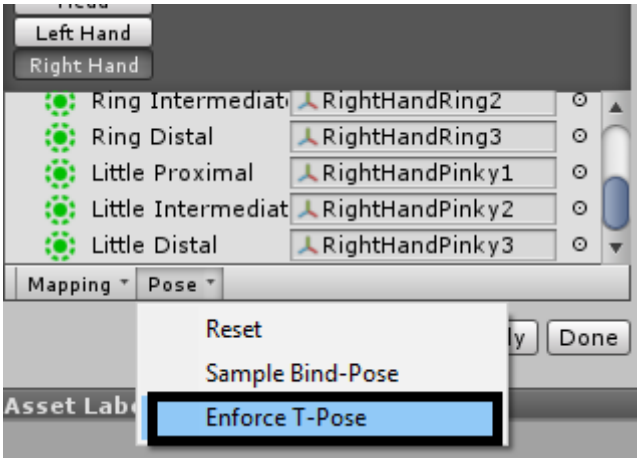
Head

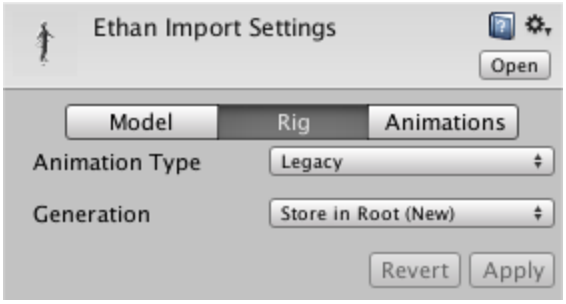


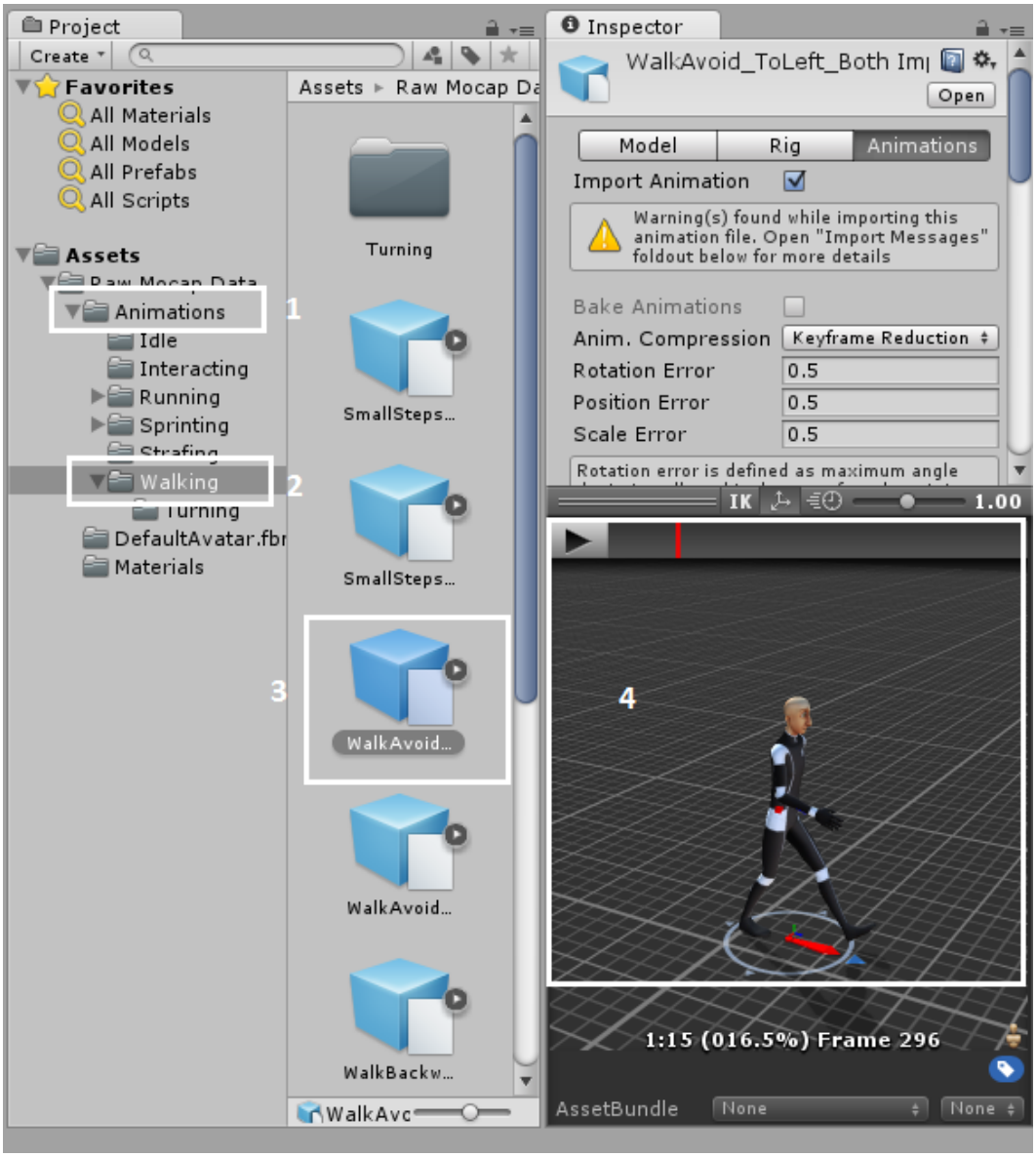
Left Hand

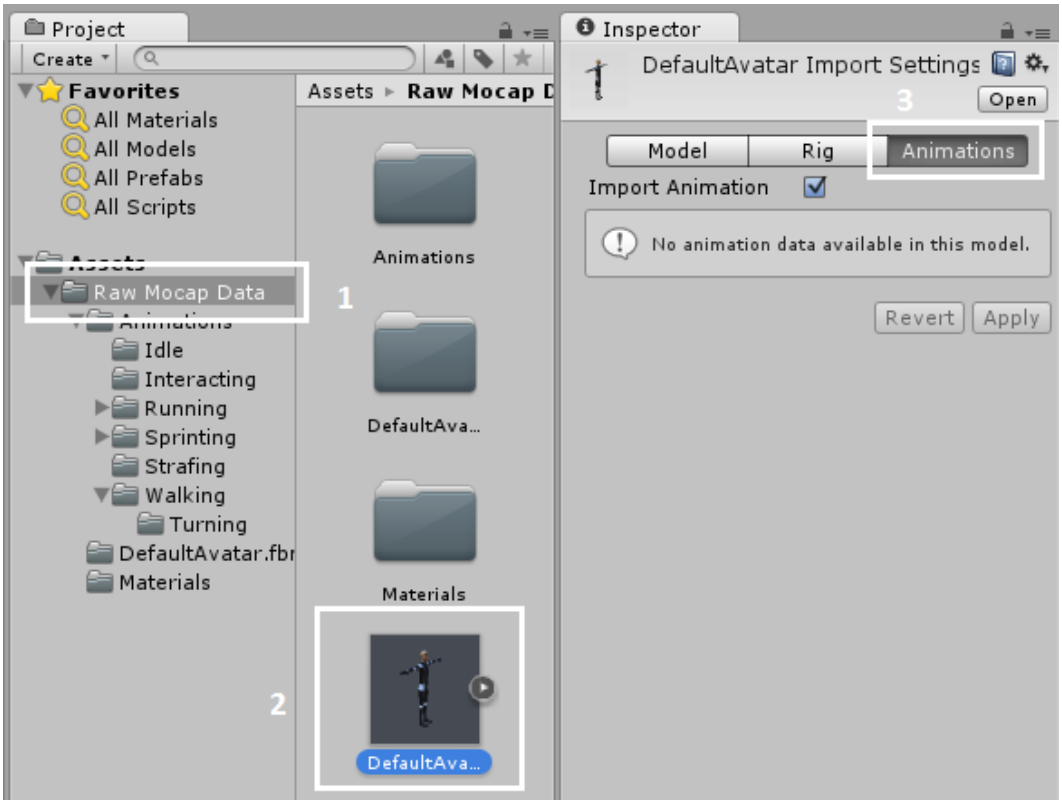


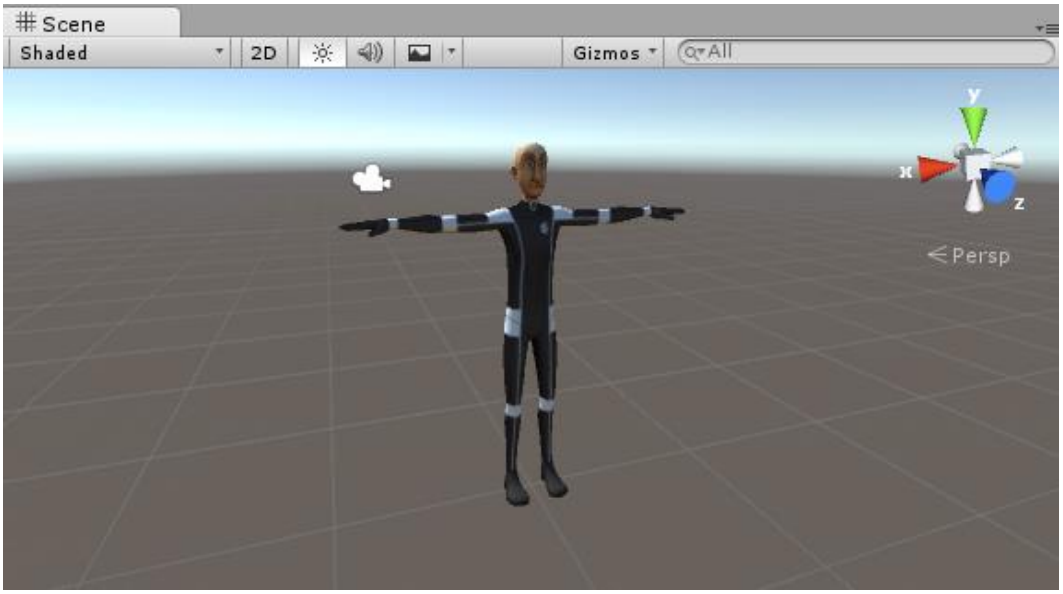
Right Hand

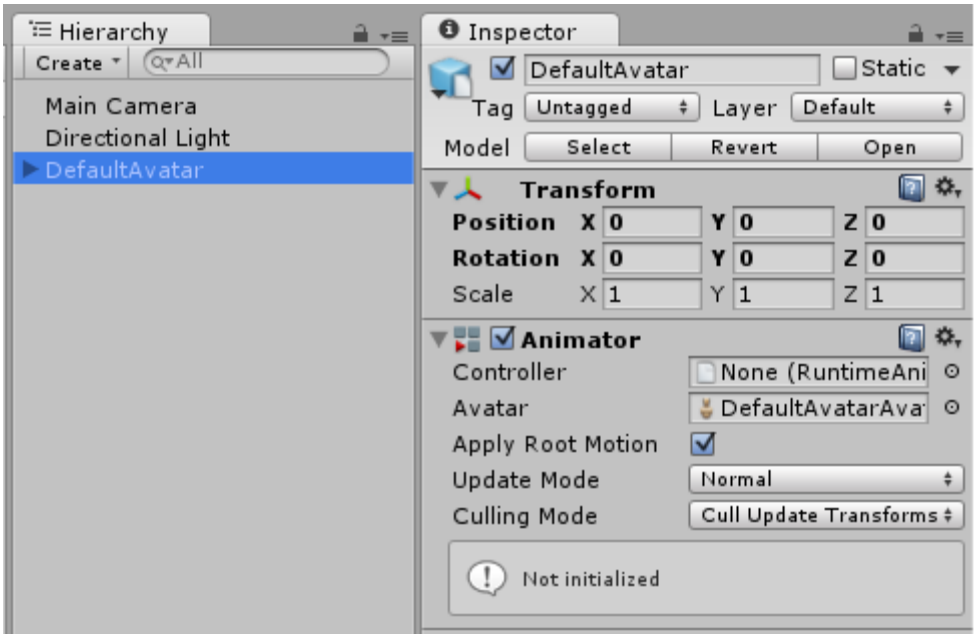

Left Hand
Right Hand
Ring Intermediat
RightHandRing2
Ring Distal
RightHandRing3
Little Proximal
RightHandPinky1
Little Intermediat
RightHandPinky2
Little Distal
RightHandPinky3
Mapping
Pose
Reset
Sample Bind-Pose
Enforce T-Pose
Done
Asset Lab

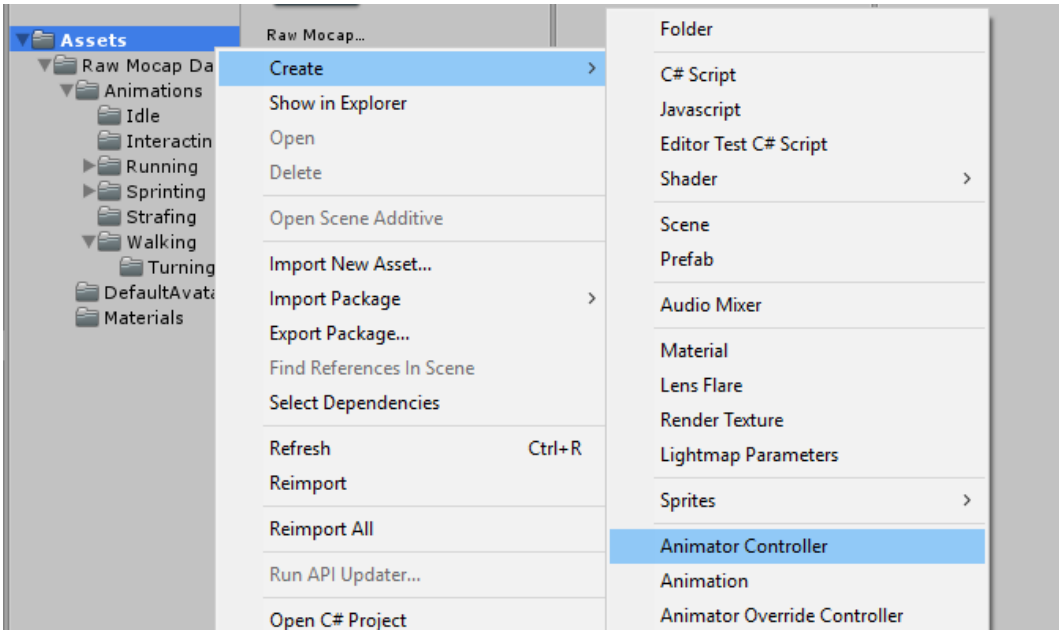

Ethan Import Settings
Open
Model
Rig
Animations
Animation Type
Legacy
Generation
Store in Root (New)
Revert
Apply

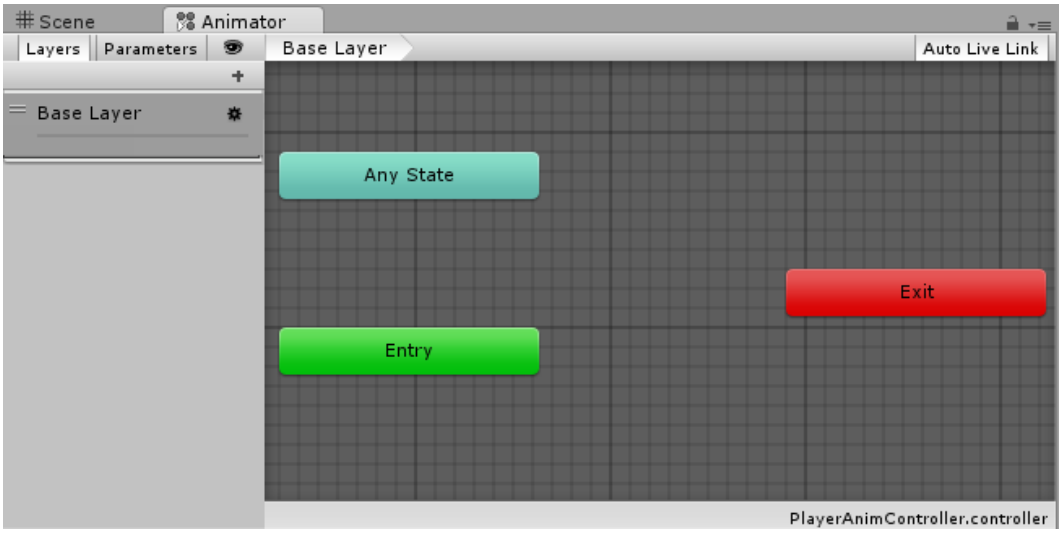

Project
Create
Favorites
All Materials
All Models
All Prefabs
All Scripts
Assets
Animations
Idle
Interacting
Running
Sprinting
Walking
Turning
DefaultAvatar.fbr
Materials
1
2
3
4
Assets ▸ Raw Mocap Da
Turning
SmallSteps...
SmallSteps...
WalkAvoid...
WalkAvoid...
WalkBackw...
WalkAvc
Inspector
WalkAvoid_ToLeft_Both Imp
Open
Model
Rig
Animations
Import Animation
Warning(s) found while importing this animation file. Open "Import Messages" foldout below for more details
Bake Animations
Anim. Compression
Keyframe Reduction
Rotation Error
0.5
Position Error
0.5
Scale Error
0.5
Rotation error is defined as maximum angle
IK
1.00
1:15 (016.5%) Frame 296
AssetBundle
None
None

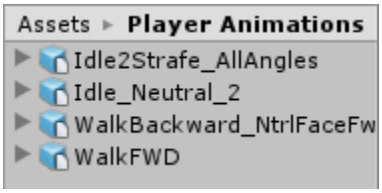

Project
Create
Favorites
All Materials
All Models
All Prefabs
All Scripts
Raw Mocap Data
Idle
Interacting
Running
Sprinting
Strafing
Walking
Turning
DefaultAvatar.fbr
Materials
Assets ▸ Raw Mocap D
Animations
DefaultAva...
Materials
DefaultAva...
1
2
Inspector
DefaultAvatar Import Settings
Open
3
Model
Rig
Animations
Import Animation
No animation data available in this model.
Revert
Apply

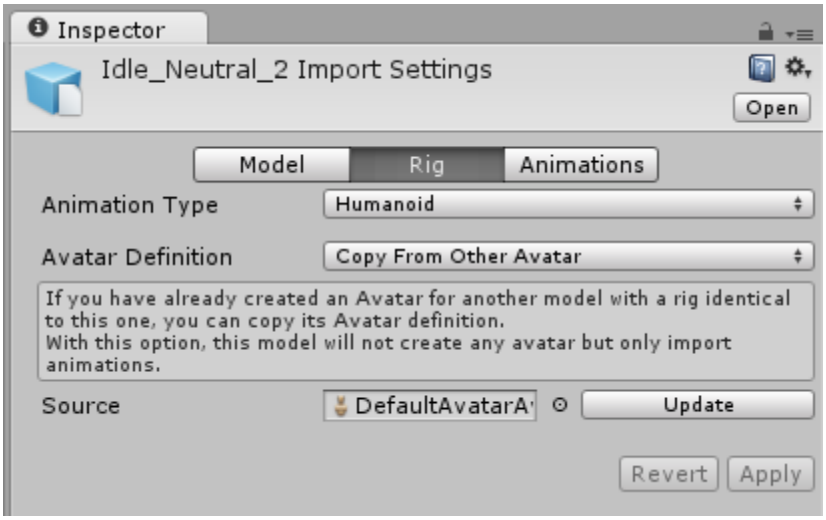

Scene
Shaded
2D
Gizmos
All
Persp

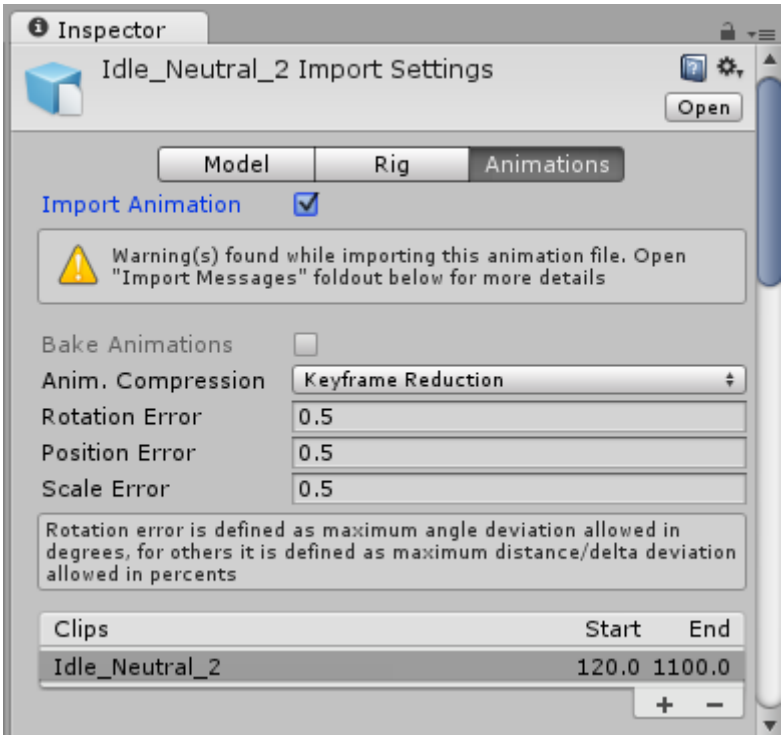

Hierarchy
Create
All
Main Camera
Directional Light
DefaultAvatar
Inspector
DefaultAvatar
Static
Tag
Untagged
Layer
Default
Model
Select
Revert
Open
Transform
Position X 0 Y 0 Z 0
Rotation X 0 Y 0 Z 0
Scale X 1 Y 1 Z 1
Animator
Controller
None (RuntimeAni
Avatar
DefaultAvatarAva
Apply Root Motion
Update Mode
Normal
Culling Mode
Cull Update Transforms
Not initialized

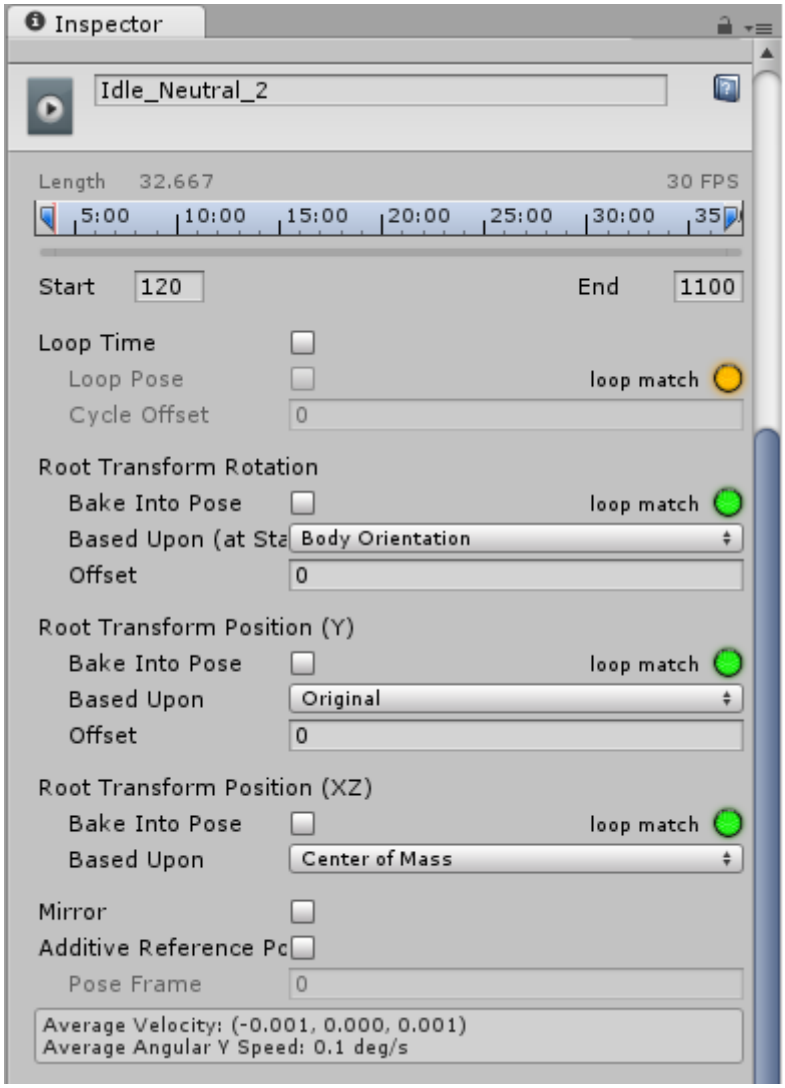

Assets
Raw Mocap Da
Animations
Idle
Interactin
Running
Sprinting
Strafing
Walking
Turning
DefaultAvata
Materials
Raw Mocap...
Create
Show in Explorer
Open
Delete
Open Scene Additive
Import New Asset...
Import Package
Export Package...
Find References In Scene
Select Dependencies
Refresh Ctrl+R
Reimport
Reimport All
Run API Updater...
Open C# Project
Folder
C# Script
Javascript
Editor Test C# Script
Shader
Scene
Prefab
Audio Mixer
Material
Lens Flare
Render Texture
Lightmap Parameters
Sprites
Animator Controller
Animation
Animator Override Controller

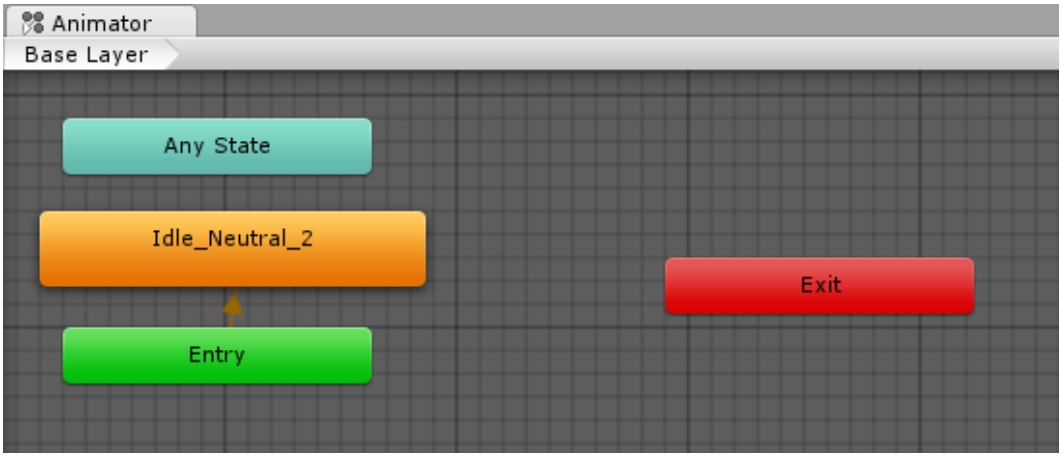

Scene
Animator
Layers
Parameters
Base Layer
Auto Live Link
Base Layer
Any State
Exit
Entry
PlayerAnimController.controller

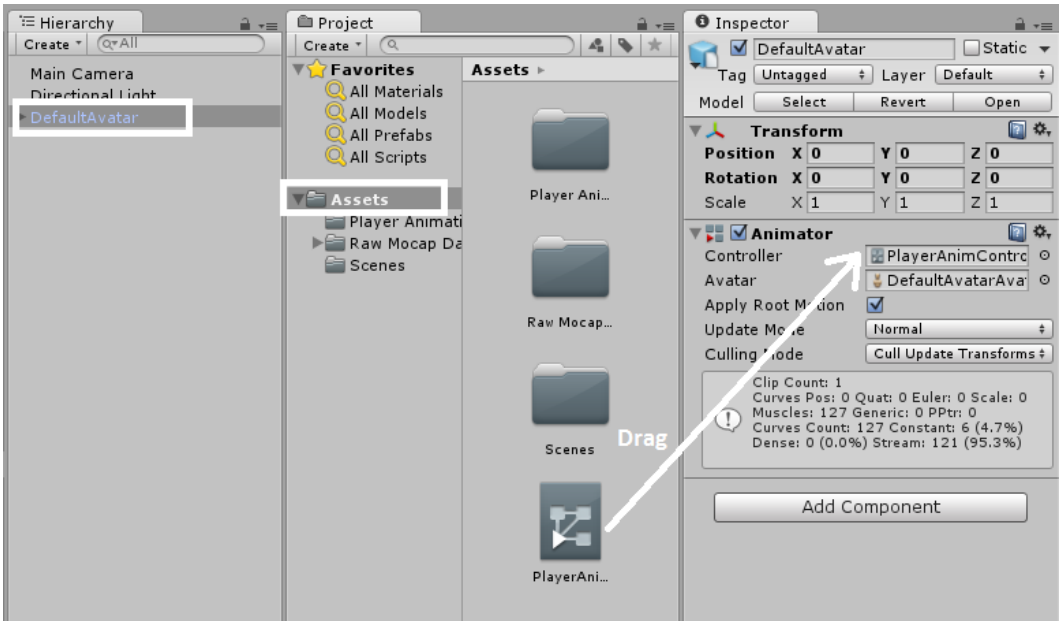

Assets ▸ Player Animations
Idle2Strafe_AllAngles
Idle_Neutral_2
WalkBackward_NtrlFaceFw
WalkFWD

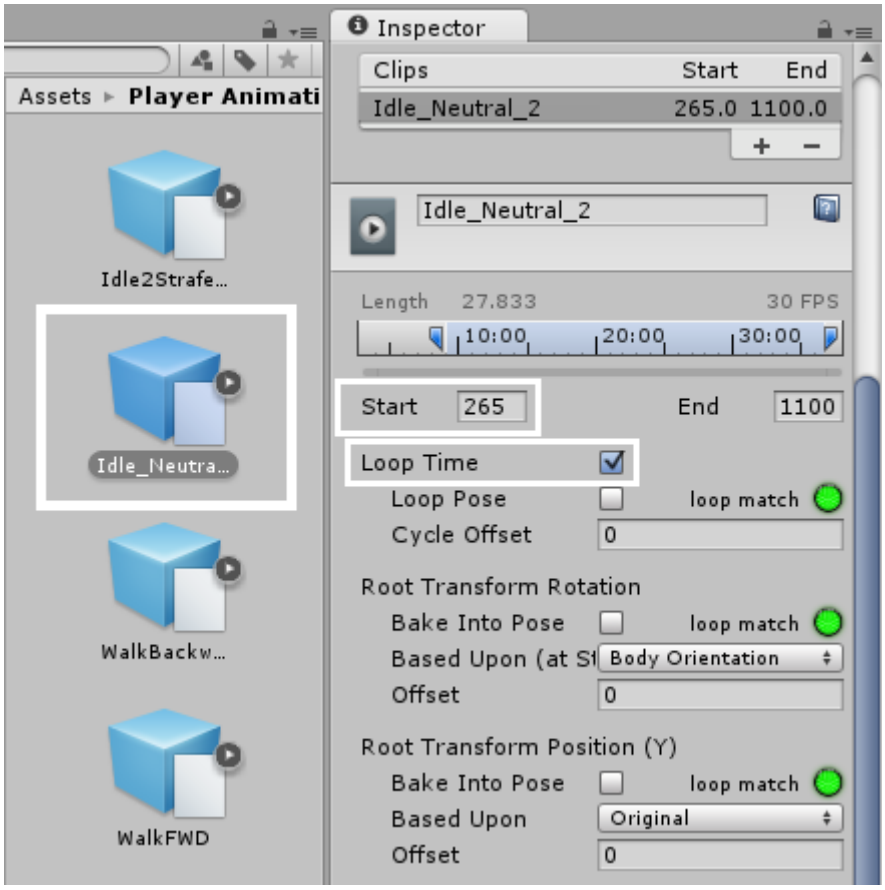

Inspector
Idle_Neutral_2 Import Settings
Open
Model
Rig
Animations
Animation Type
Humanoid
Avatar Definition
Copy From Other Avatar
If you have already created an Avatar for another model with a rig identical to this one, you can copy its Avatar definition.
With this option, this model will not create any avatar but only import animations.
Source
DefaultAvatarA
Update
Revert
Apply

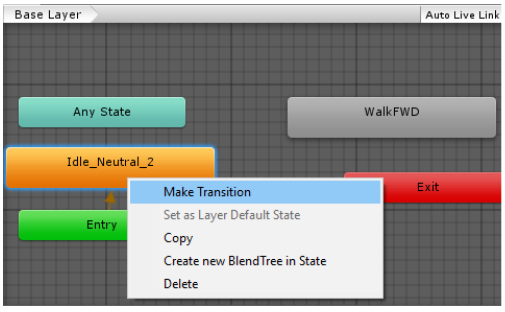

Inspector
Idle_Neutral_2 Import Settings
Open
Model
Rig
Animations
Import Animation
Warning(s) found while importing this animation file. Open "Import Messages" foldout below for more details
Bake Animations
Anim. Compression
Keyframe Reduction
Rotation Error
0.5
Position Error
0.5
Scale Error
0.5
Rotation error is defined as maximum angle deviation allowed in degrees, for others it is defined as maximum distance/delta deviation allowed in percents
Clips
Start
End
Idle_Neutral_2
120.0
1100.0

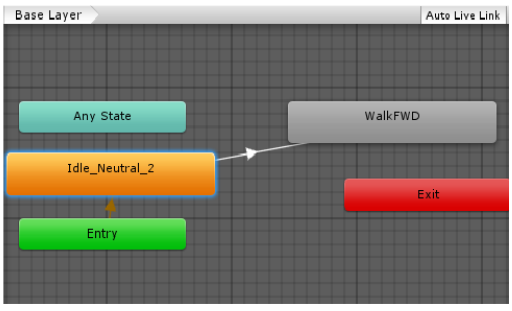

Inspector
Idle_Neutral_2
Length 32.667
30 FPS
5:00
10:00
15:00
20:00
25:00
30:00
35
Start 120
End 1100
Loop Time
Loop Pose
loop match
Cycle Offset 0
Root Transform Rotation
Bake Into Pose
loop match
Based Upon (at Sta Body Orientation
Offset 0
Root Transform Position (Y)
Bake Into Pose
loop match
Based Upon Original
Offset 0
Root Transform Position (XZ)
Bake Into Pose
loop match
Based Upon Center of Mass
Mirror
Additive Reference Pc
Pose Frame 0
Average Velocity: (-0.001, 0.000, 0.001)
Average Angular Y Speed: 0.1 deg/s

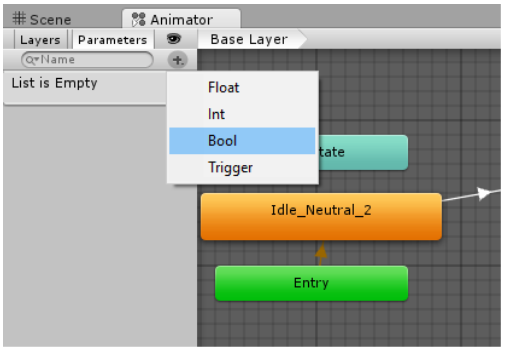

Animator
Base Layer
Any State
Idle_Neutral_2
Exit
Entry

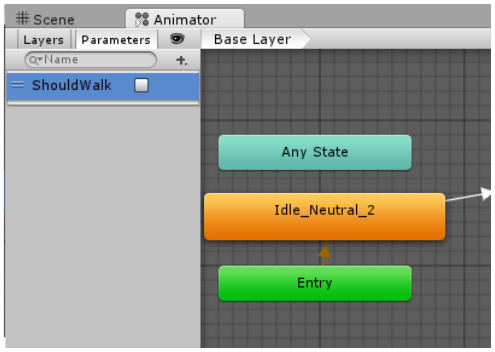

Hierarchy
Create
Main Camera
DefaultAvatar
Project
Create
Favorites
All Materials
All Models
All Prefabs
All Scripts
Assets
Player Animati
Raw Mocap Da
Scenes
Assets
Player Ani...
Raw Mocap...
Scenes
PlayerAni...
Drag
Inspector
DefaultAvatar
Static
Tag
Untagged
Layer
Default
Model
Select
Revert
Open
Transform
Position
Rotation
Scale
Animator
Controller
PlayerAnimContrc
Avatar
DefaultAvatarAva
Apply Root Motion
Update Mode
Normal
Culling Mode
Cull Update Transforms
Clip Count: 1
Curves Pos: 0 Quat: 0 Euler: 0 Scale: 0
Muscles: 127 Generic: 0 PPtr: 0
Curves Count: 127 Constant: 6 (4.7%)
Dense: 0 (0.0%) Stream: 121 (95.3%)
Add Component

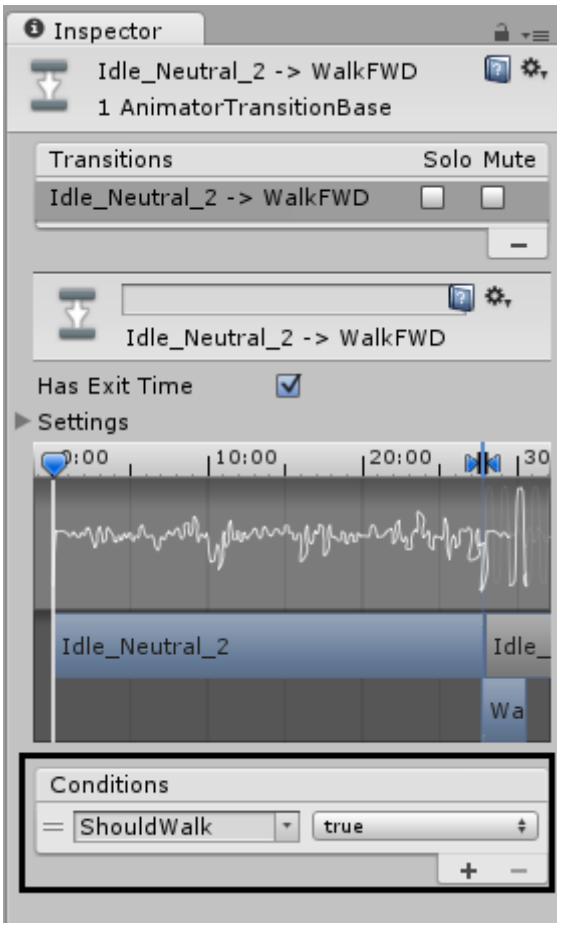

Inspector
Assets ▸ Player Animati
Idle2Strafe...
Idle_Neutra...
WalkBackw...
WalkFWD
Clips Start End
Idle_Neutral_2 265.0 1100.0
Idle_Neutral_2
Length 27.833 30 FPS
10:00 20:00 30:00
Start 265 End 1100
Loop Time
Loop Pose loop match
Cycle Offset 0
Root Transform Rotation
Bake Into Pose loop match
Based Upon (at S Body Orientation
Offset 0
Root Transform Position (Y)
Bake Into Pose loop match
Based Upon Original
Offset 0


Base Layer
Auto Live Link
Any State
WalkFWD
Idle_Neutral_2
Exit
Entry
Make Transition
Set as Layer Default State
Copy
Create new BlendTree in State
Delete

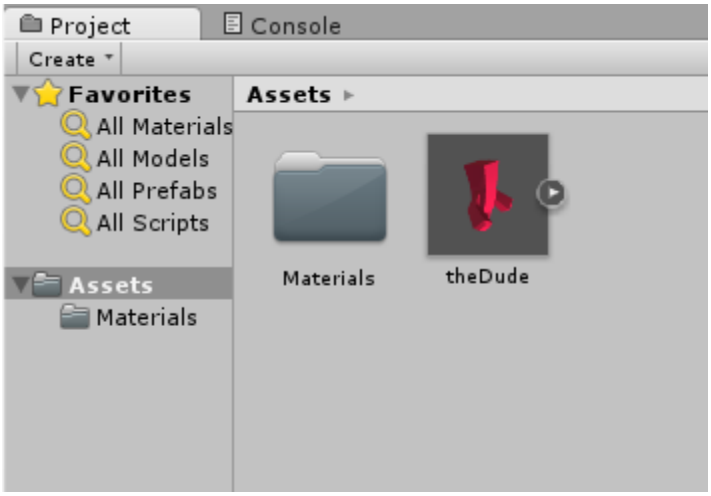

Base Layer
Auto Live Link
Any State
WalkFWD
Idle_Neutral_2
Exit
Entry

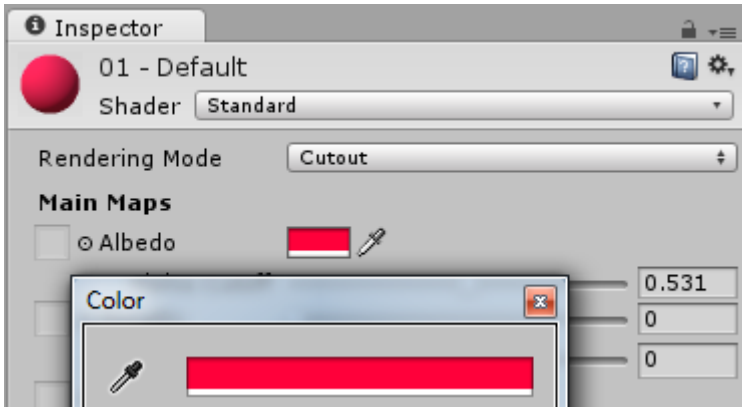

Scene
Animator
Layers
Parameters
Base Layer
Name
List is Empty
Float
Int
Bool
Trigger
Idle_Neutral_2
Entry

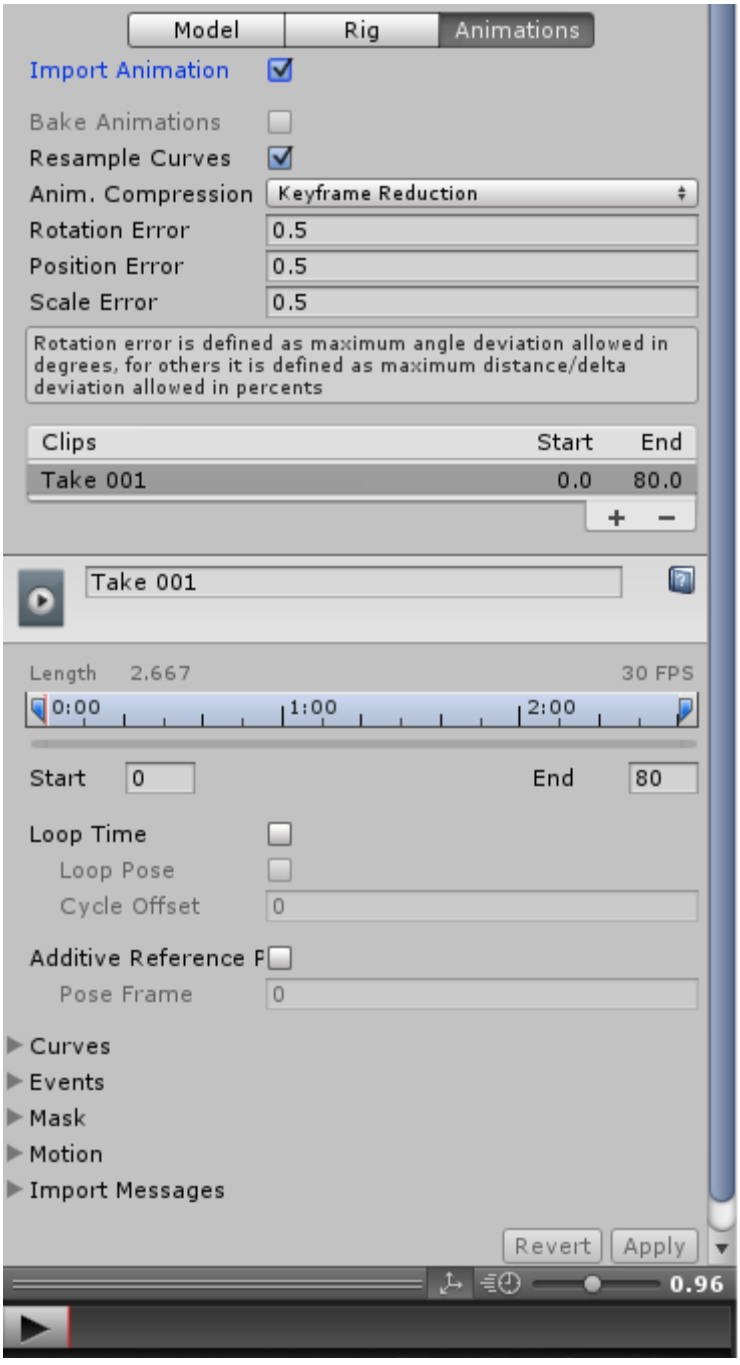

Scene
Animator
Layers
Parameters
Base Layer
Name
ShouldWalk
Any State
Idle_Neutral_2
Entry

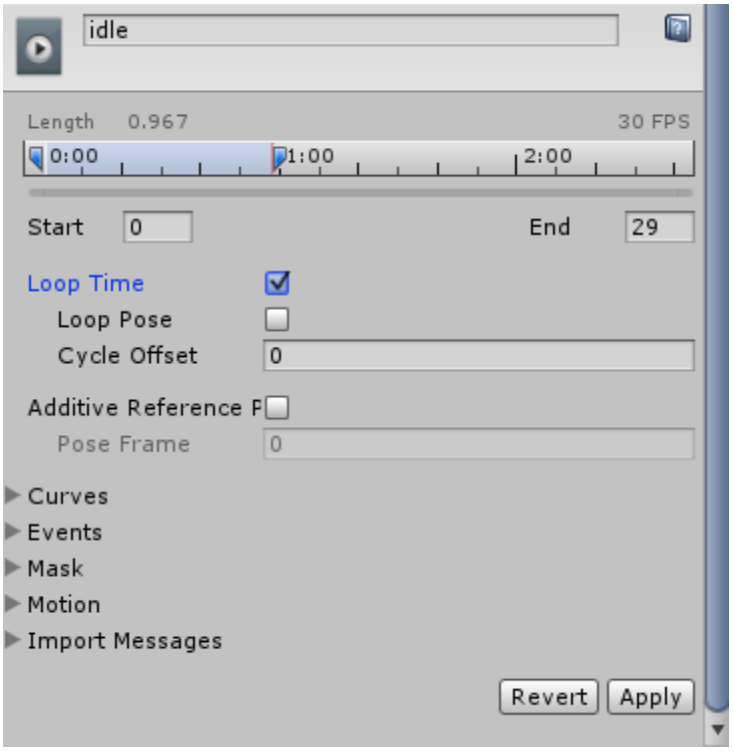

Inspector
Idle_Neutral_2 -> WalkFWD
1 AnimatorTransitionBase
Transitions
Solo
Mute
Idle_Neutral_2 -> WalkFWD
Idle_Neutral_2 -> WalkFWD
Has Exit Time
Settings
10:00
20:00
Idle_Neutral_2
Idle_
Wa
Conditions
ShouldWalk
true

Chapter 4: Enemy Characters with AI

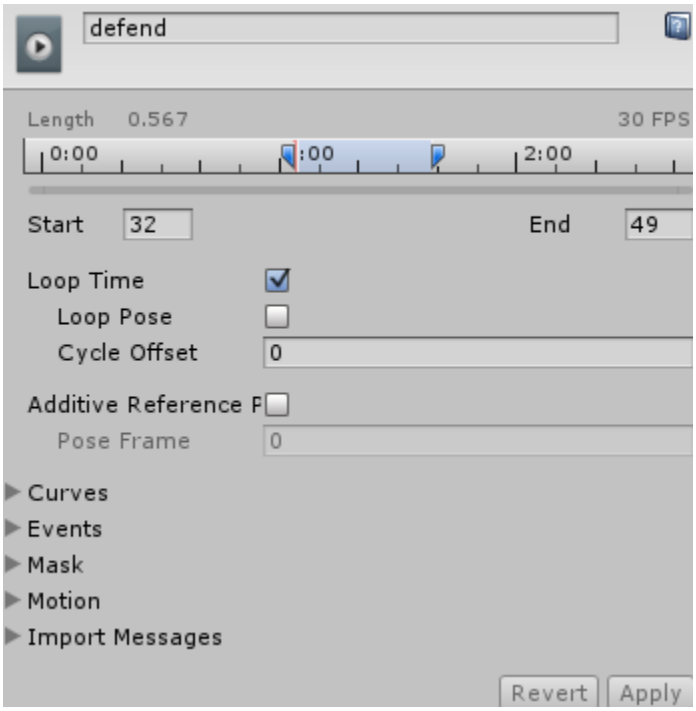


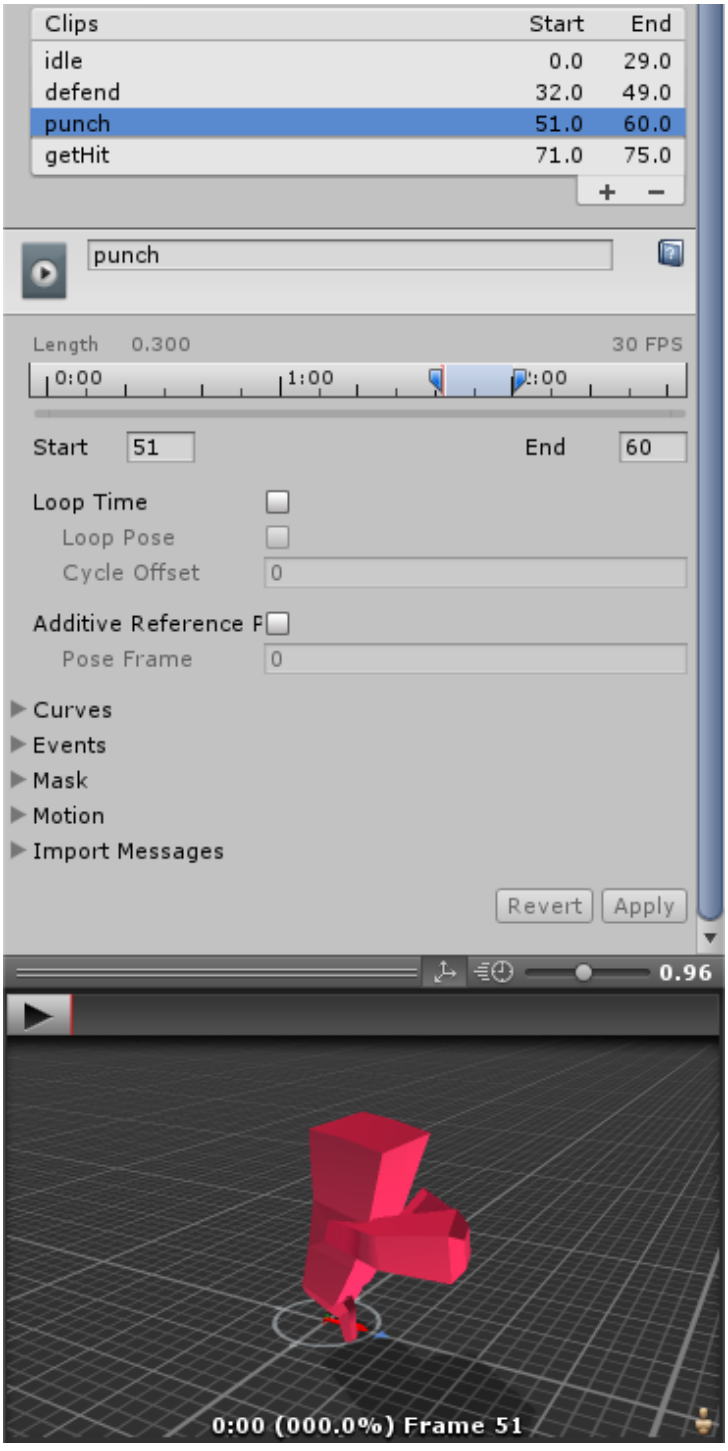


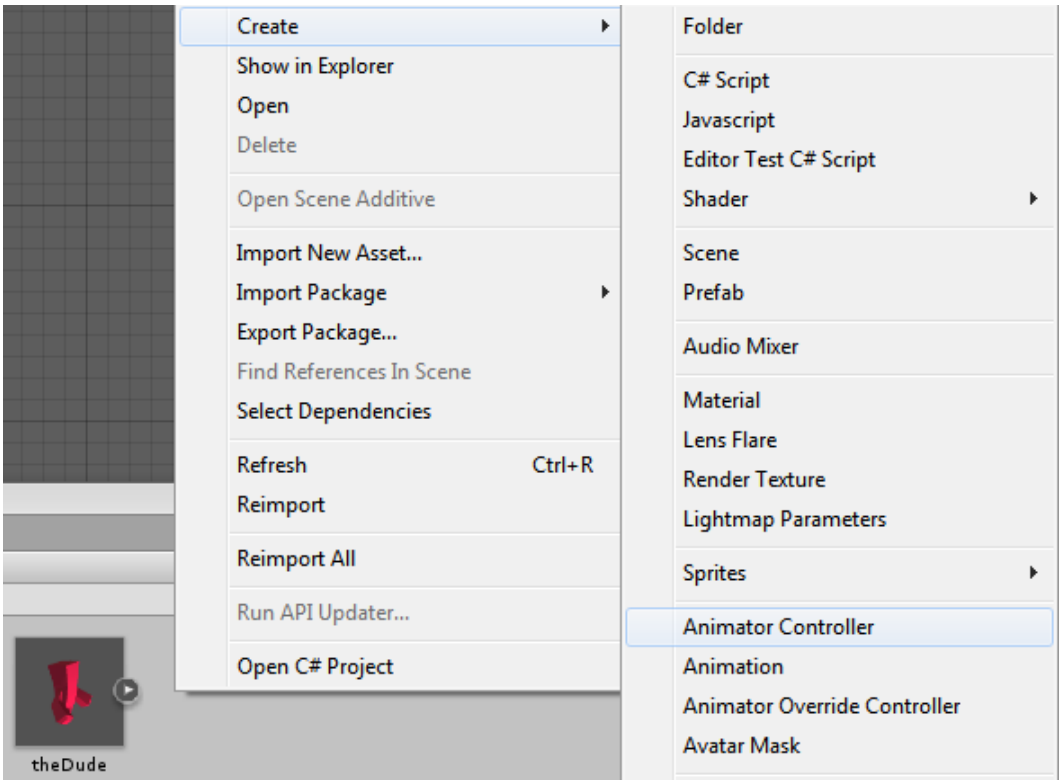

Model
Rig
Animations
Import Animation
Bake Animations
Resample Curves
Anim. Compression
Keyframe Reduction
Rotation Error
0.5
Position Error
0.5
Scale Error
0.5
Rotation error is defined as maximum angle deviation allowed in degrees, for others it is defined as maximum distance/delta deviation allowed in percents
Clips
Start
End
Take 001
0.0
80.0
Take 001
Length
2.667
30 FPS
0:00
1:00
2:00
Start
0
End
80
Loop Time
Loop Pose
Cycle Offset
0
Additive Reference P
Pose Frame
0
Curves
Events
Mask
Motion
Import Messages
Revert
Apply
0.96

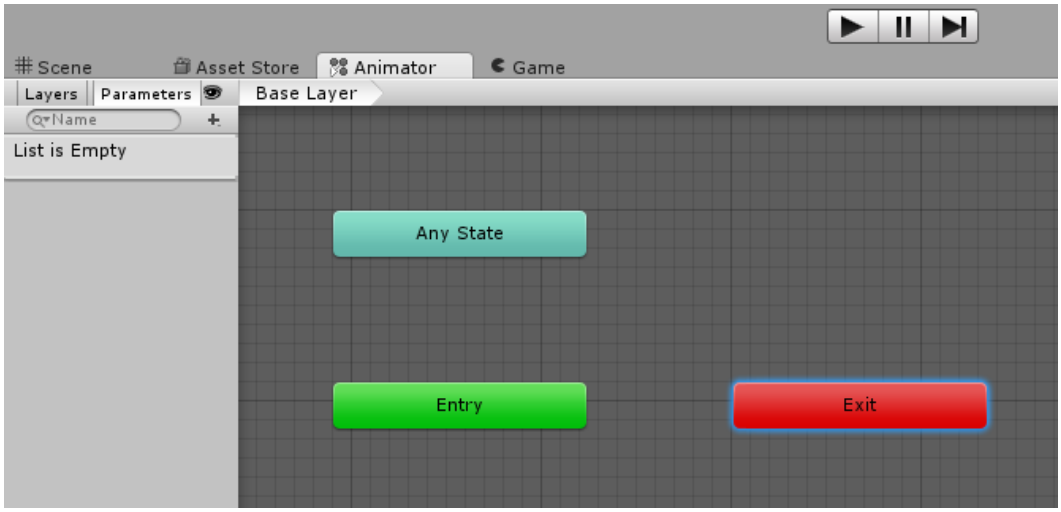

idle
Length 0.967
30 FPS
0:00
1:00
2:00
Start 0
End 29
Loop Time
Loop Pose
Cycle Offset 0
Additive Reference P
Pose Frame 0
Curves
Events
Mask
Motion
Import Messages
Revert
Apply

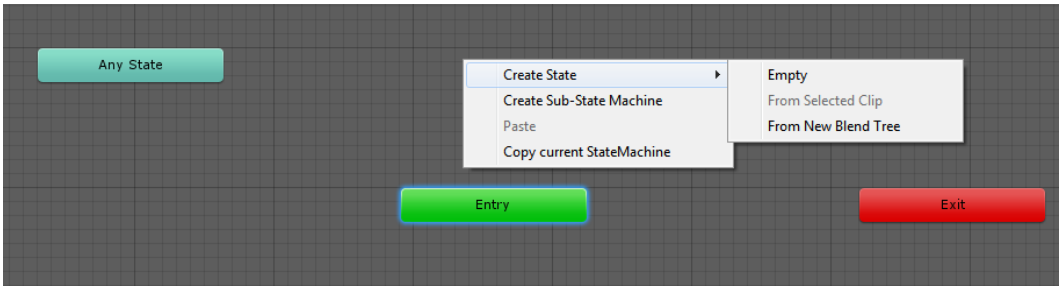
Clips
Start
End
idle 0.0 29.0
Take 001 0.0 80.0
+
−

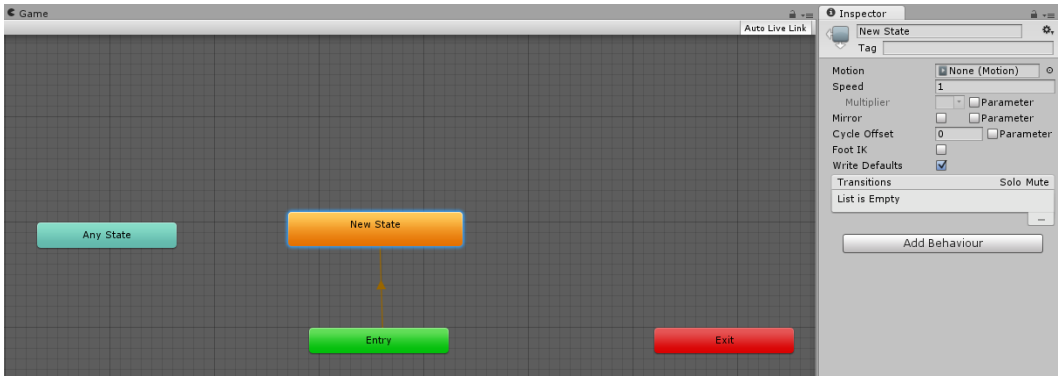

defend
Length 0.567
30 FPS
0:00
:00
2:00
Start 32
End 49
Loop Time
Loop Pose
Cycle Offset 0
Additive Reference P
Pose Frame 0
Curves
Events
Mask
Motion
Import Messages
Revert
Apply

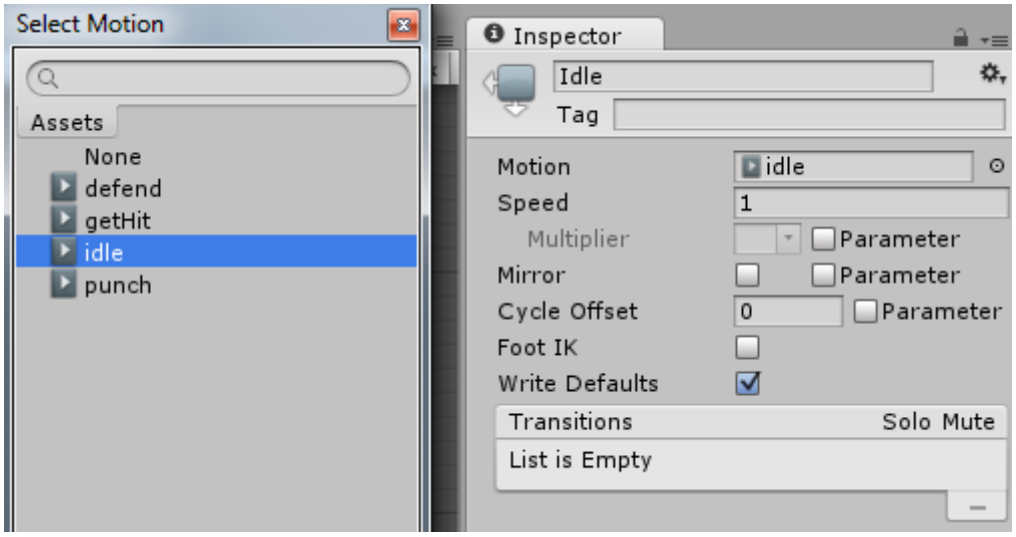

Clips
Start
End
idle
0.0
29.0
defend
32.0
49.0
punch
51.0
60.0
getHit
71.0
75.0
punch
Length
0.300
30 FPS
0:00
1:00
Start
51
End
60
Loop Time
Loop Pose
Cycle Offset
0
Additive Reference P
Pose Frame
0
Curves
Events
Mask
Motion
Import Messages
Revert
Apply
0.96
0:00 (000.0%) Frame 51

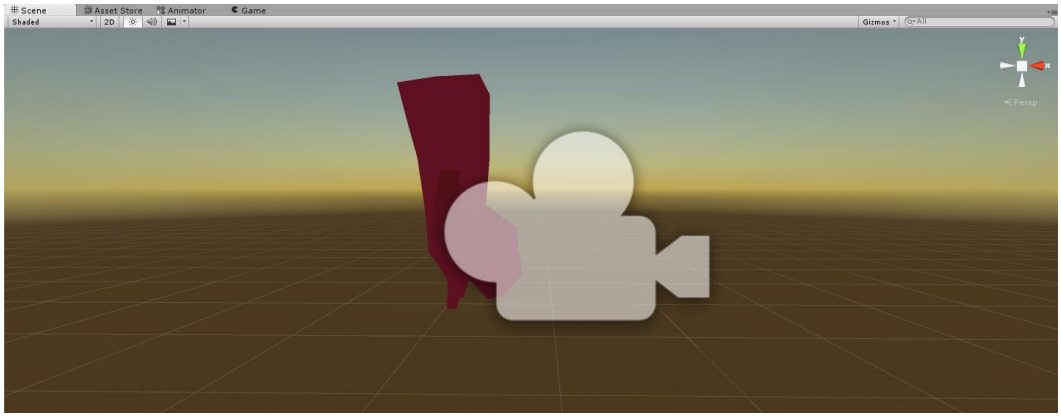

Create
Show in Explorer
Open
Delete
Open Scene Additive
Import New Asset...
Import Package
Export Package...
Find References In Scene
Select Dependencies
Refresh Ctrl+R
Reimport
Reimport All
Run API Updater...
Open C# Project
Folder
C# Script
Javascript
Editor Test C# Script
Shader
Scene
Prefab
Audio Mixer
Material
Lens Flare
Render Texture
Lightmap Parameters
Sprites
Animator Controller
Animation
Animator Override Controller
Avatar Mask
theDude

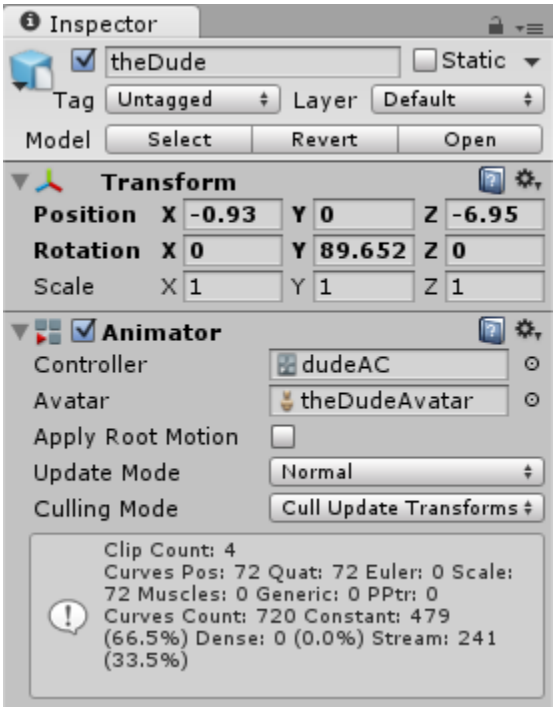

Scene
Asset Store
Animator
Game
Layers
Parameters
Base Layer
Name
List is Empty
Any State
Entry
Exit

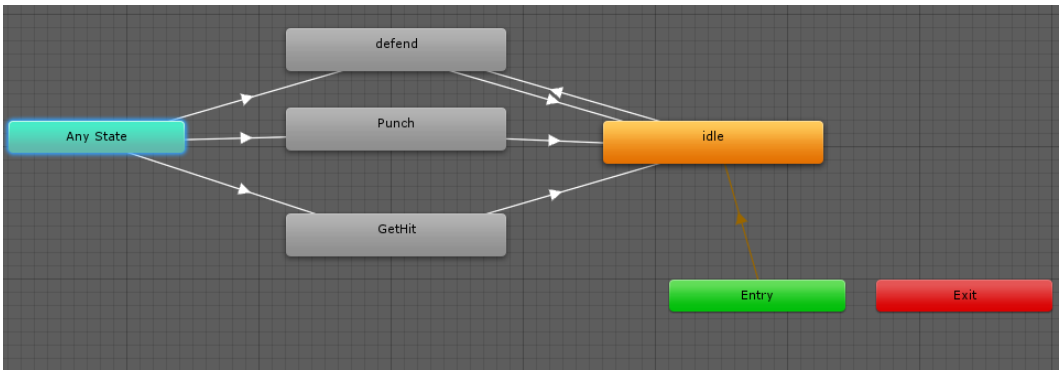

Any State
Create State
Create Sub-State Machine
Paste
Copy current StateMachine
Empty
From Selected Clip
From New Blend Tree
Entry
Exit

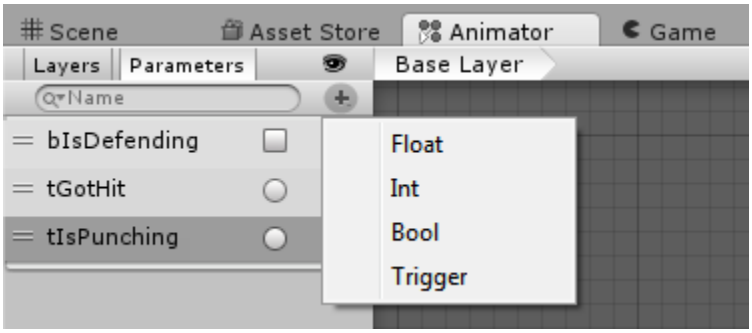

Game
Auto Live Link
Inspector
New State
Tag
Motion
None (Motion)
Speed
Multiplier
Parameter
Mirror
Cycle Offset
Foot IK
Write Defaults
Transitions
Solo Mute
List is Empty
Add Behaviour
Any State
New State
Entry
Exit

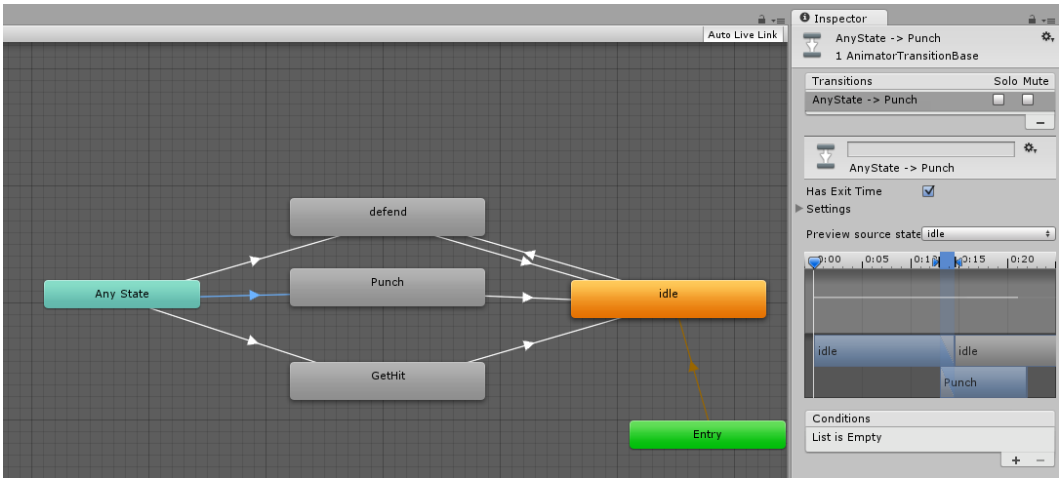

Select Motion
Assets
None
defend
getHit
idle
punch
Inspector
Idle
Tag
Motion
idle
Speed
1
Multiplier
Parameter
Mirror
Parameter
Cycle Offset
0
Parameter
Foot IK
Write Defaults
Transitions
Solo Mute
List is Empty

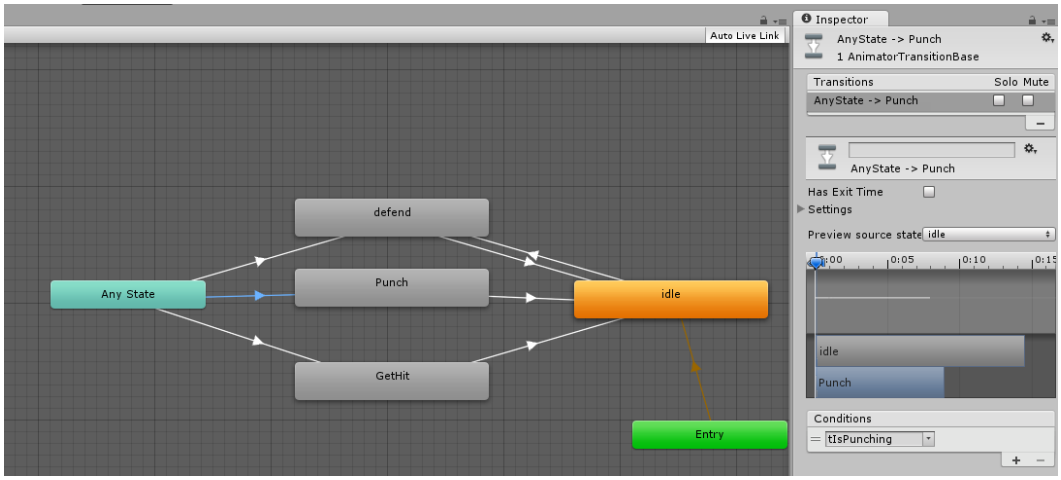


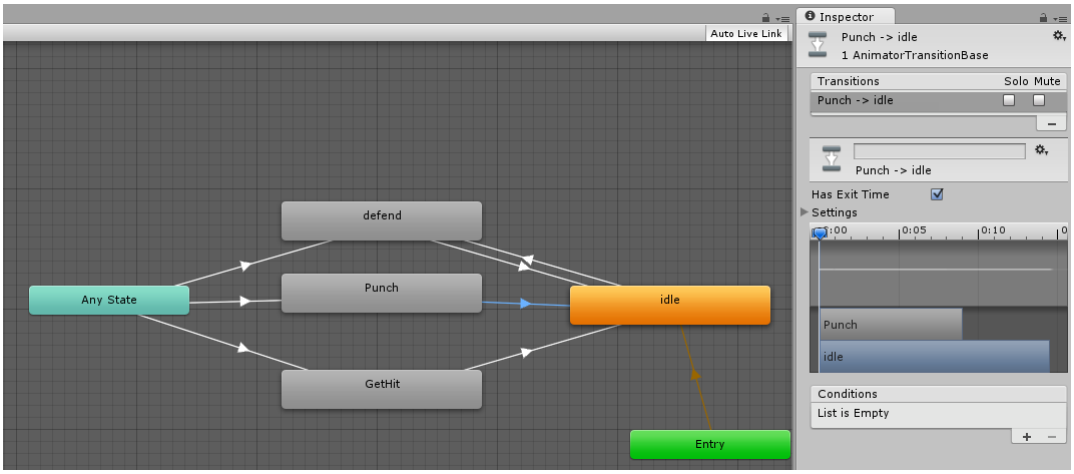

Inspector
theDude
Static
Tag
Untagged
Layer
Default
Model
Select
Revert
Open
Transform
Position X -0.93 Y 0 Z -6.95
Rotation X 0 Y 89.652 Z 0
Scale X 1 Y 1 Z 1
Animator
Controller
dudeAC
Avatar
theDudeAvatar
Apply Root Motion
Update Mode
Normal
Culling Mode
Cull Update Transforms
Clip Count: 4
Curves Pos: 72 Quat: 72 Euler: 0 Scale: 72 Muscles: 0 Generic: 0 PPtr: 0
Curves Count: 720 Constant: 479 (66.5%) Dense: 0 (0.0%) Stream: 241 (33.5%)

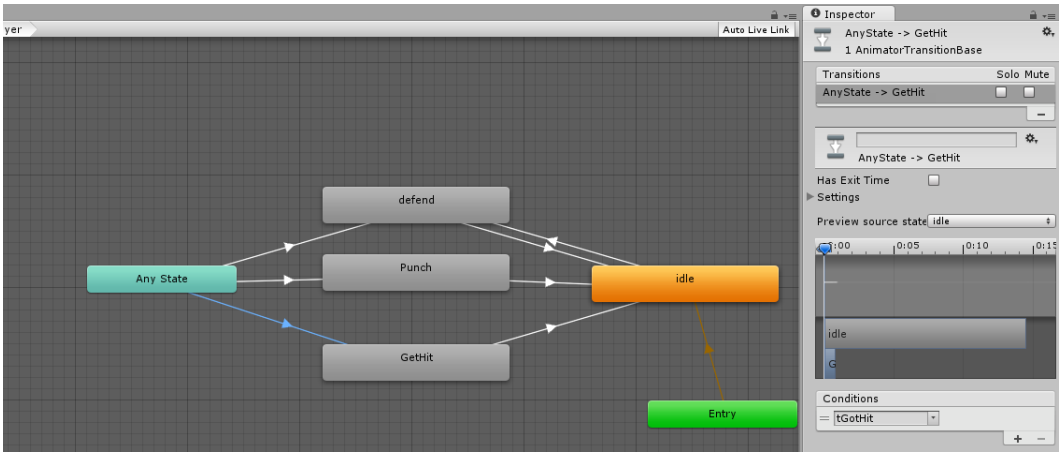

defend
Any State
Punch
idle
GetHit
Entry
Exit

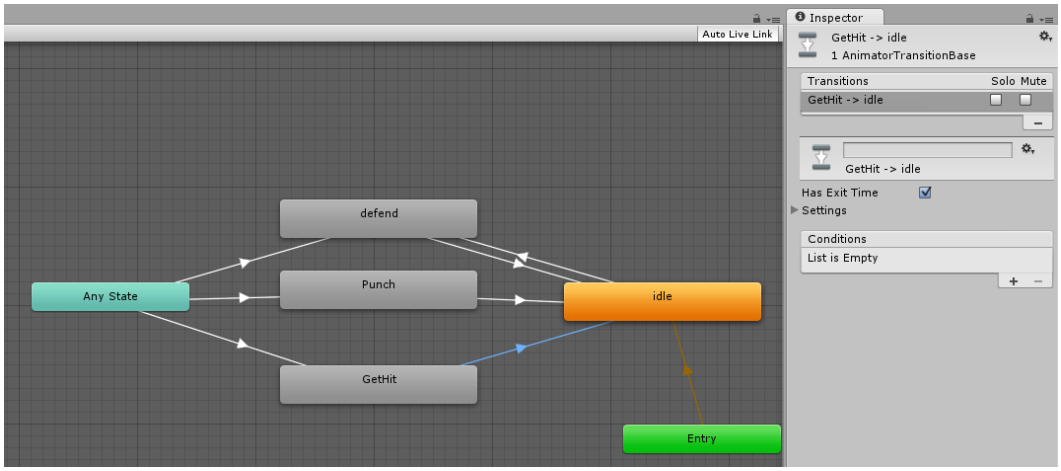

Scene
Asset Store
Animator
Game
Layers
Parameters
Base Layer
Name
bIsDefending
tGotHit
tIsPunching
Float
Int
Bool
Trigger

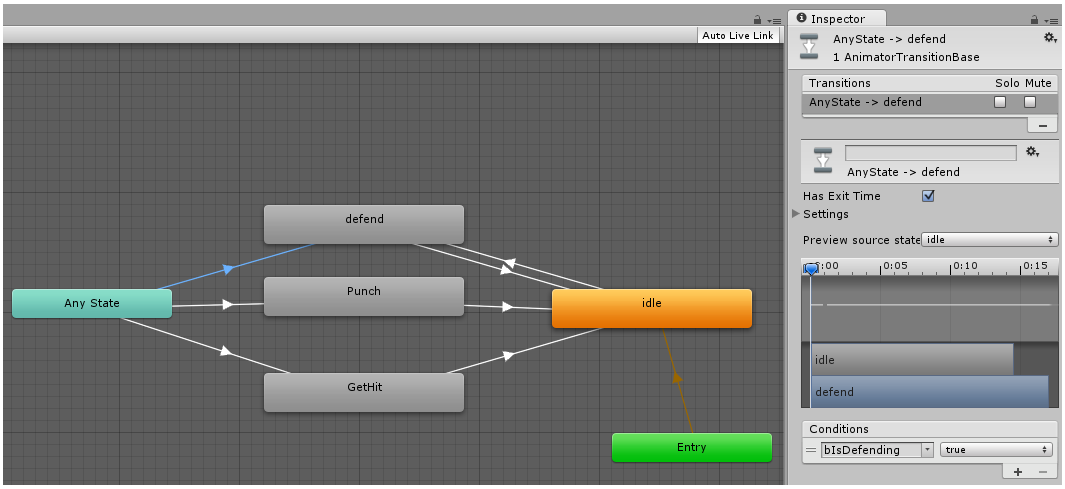

Auto Live Link
defend
Any State
Punch
idle
GetHit
Entry
Inspector
AnyState -> Punch
1 AnimatorTransitionBase
Transitions
Solo Mute
AnyState -> Punch
AnyState -> Punch
Has Exit Time
Settings
Preview source state
idle
0:00
0:05
0:10
0:15
0:20
idle
idle
Punch
Conditions
List is Empty

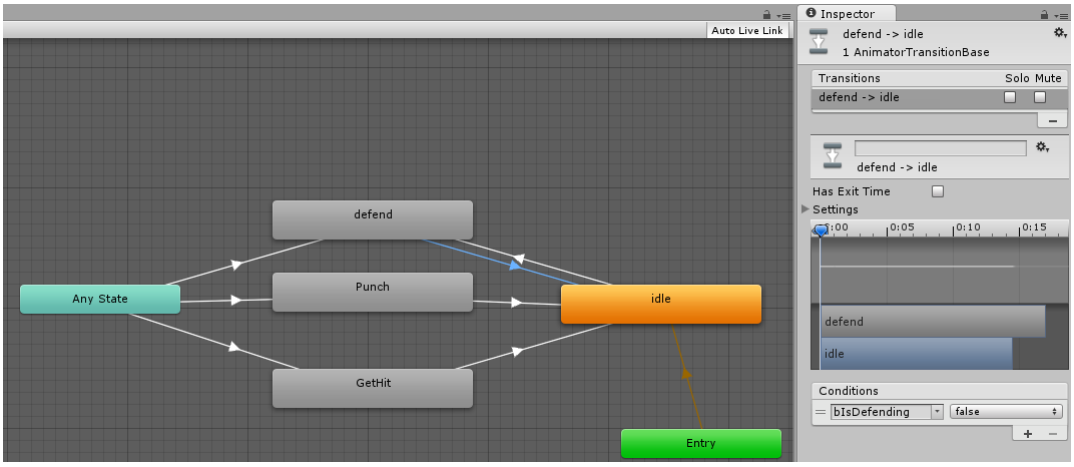

Auto Live Link
defend
Any State
Punch
idle
GetHit
Entry
Inspector
AnyState -> Punch
1 AnimatorTransitionBase
Transitions
Solo Mute
AnyState -> Punch
AnyState -> Punch
Has Exit Time
Settings
Preview source state
idle
0:00
0:05
0:10
idle
Punch
Conditions
tIsPunching

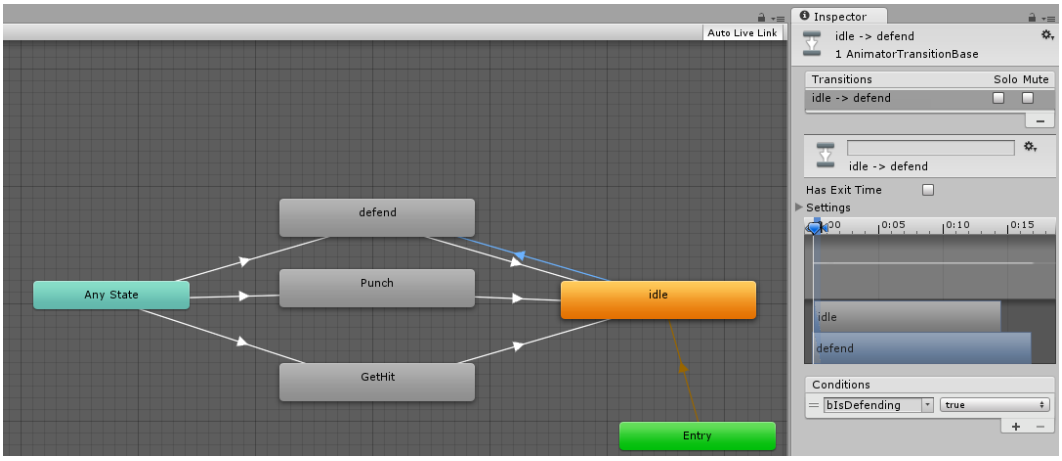

Auto Live Link
defend
Any State
Punch
idle
GetHit
Entry
Inspector
Punch -> idle
1 AnimatorTransitionBase
Transitions
Solo Mute
Punch -> idle
Punch -> idle
Has Exit Time
Settings
0:00
0:05
0:10
Punch
idle
Conditions
List is Empty

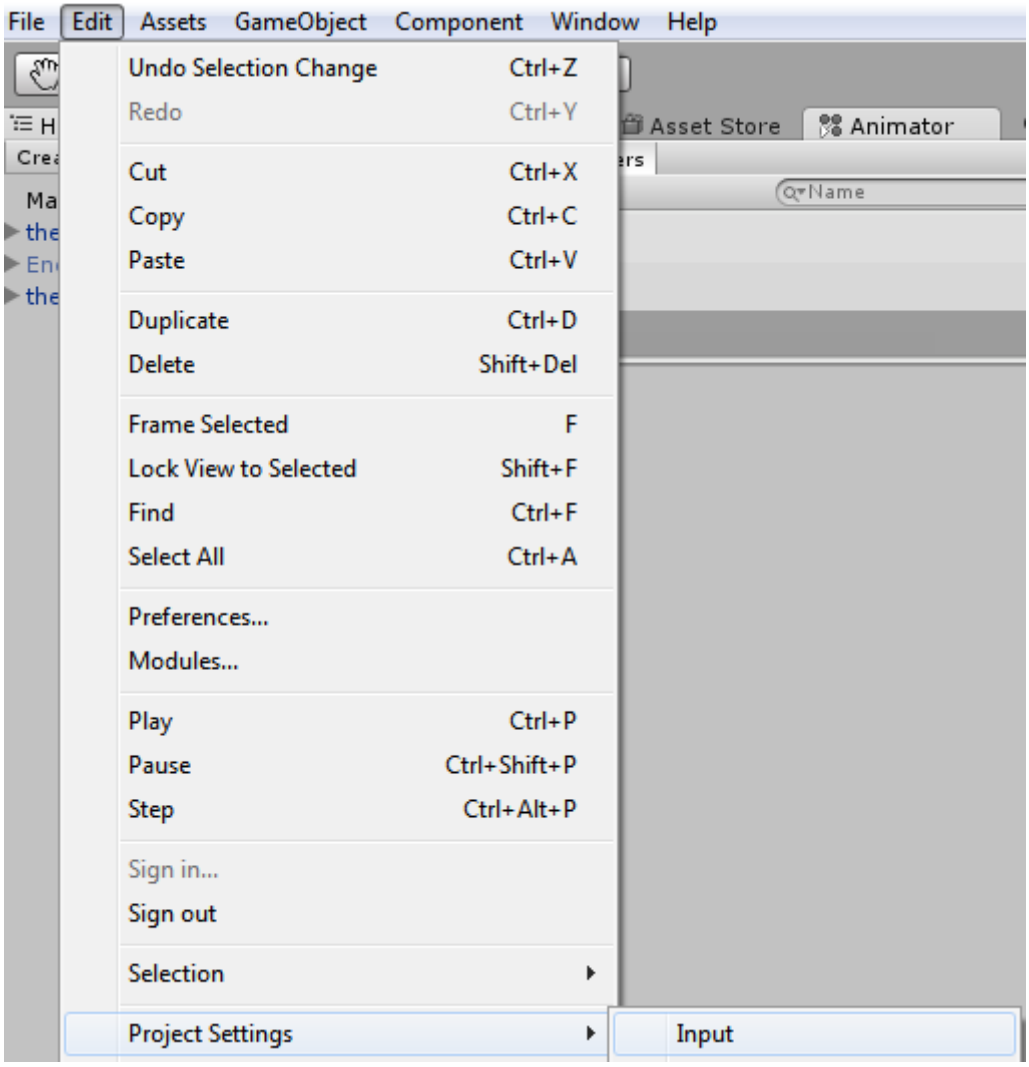

Auto Live Link
defend
Any State
Punch
idle
GetHit
Entry
Inspector
AnyState -> GetHit
1 AnimatorTransitionBase
Transitions
Solo Mute
AnyState -> GetHit
Has Exit Time
Settings
Preview source state
idle
Conditions
tGotHit

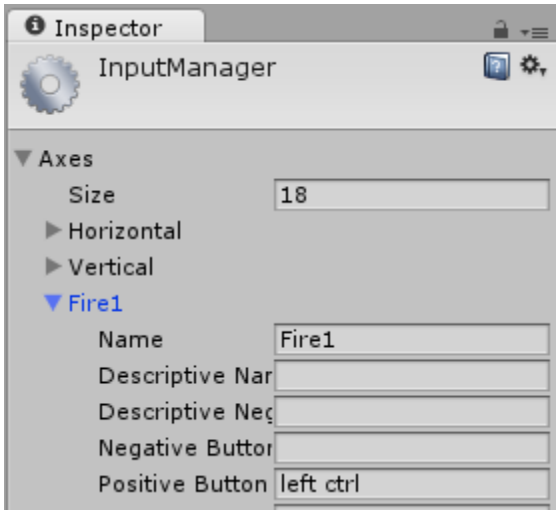

Auto Live Link
defend
Any State
Punch
idle
GetHit
Entry
Inspector
GetHit -> idle
1 AnimatorTransitionBase
Transitions
Solo Mute
GetHit -> idle
Has Exit Time
Settings
Conditions
List is Empty

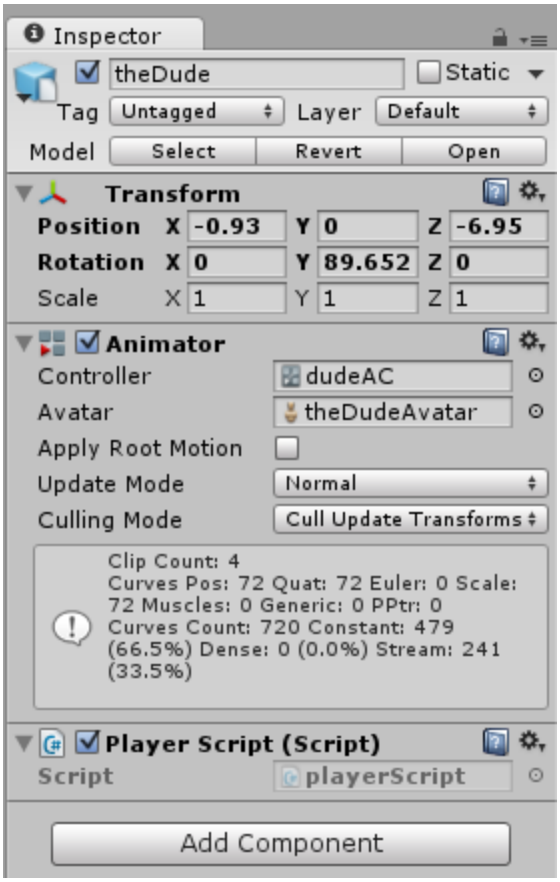

Auto Live Link
defend
Any State
Punch
idle
GetHit
Entry
Inspector
AnyState -> defend
1 AnimatorTransitionBase
Transitions
Solo Mute
AnyState -> defend
AnyState -> defend
Has Exit Time
Settings
Preview source state
idle
0:00
0:05
0:10
0:15
idle
defend
Conditions
bIsDefending
true

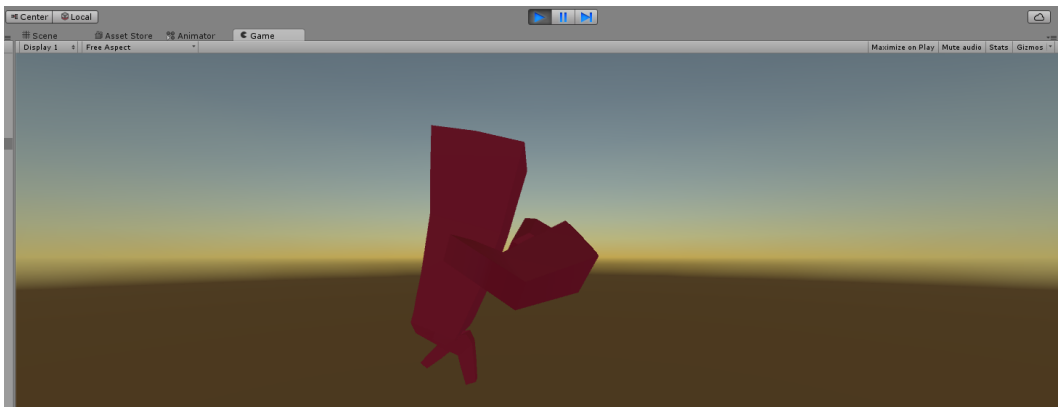

Auto Live Link
defend
Any State
Punch
idle
GetHit
Entry
Inspector
defend -> idle
1 AnimatorTransitionBase
Transitions
Solo Mute
defend -> idle
defend -> idle
Has Exit Time
Settings
0:00
0:05
0:10
0:15
defend
idle
Conditions
bIsDefending
false

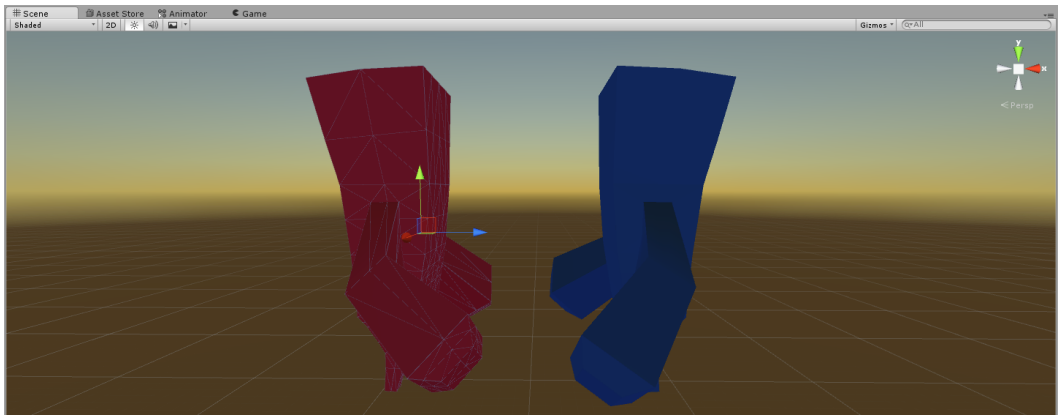

Auto Live Link
defend
Any State
Punch
idle
GetHit
Entry
Inspector
idle -> defend
1 AnimatorTransitionBase
Transitions
Solo Mute
idle -> defend
idle -> defend
Has Exit Time
Settings
0:00
0:05
0:10
0:15
idle
defend
Conditions
bIsDefending
true

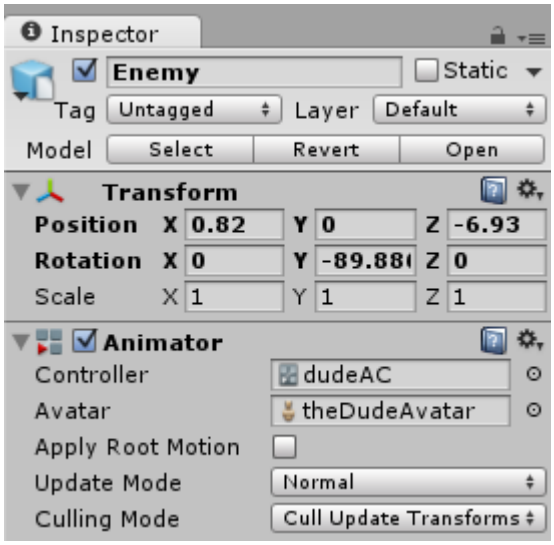

File
Edit
Assets
GameObject
Component
Window
Help
Undo Selection Change Ctrl+Z
Redo Ctrl+Y
Cut Ctrl+X
Copy Ctrl+C
Paste Ctrl+V
Duplicate Ctrl+D
Delete Shift+Del
Frame Selected F
Lock View to Selected Shift+F
Find Ctrl+F
Select All Ctrl+A
Preferences...
Modules...
Play Ctrl+P
Pause Ctrl+Shift+P
Step Ctrl+Alt+P
Sign in...
Sign out
Selection
Project Settings
Input
Asset Store
Animator
Name

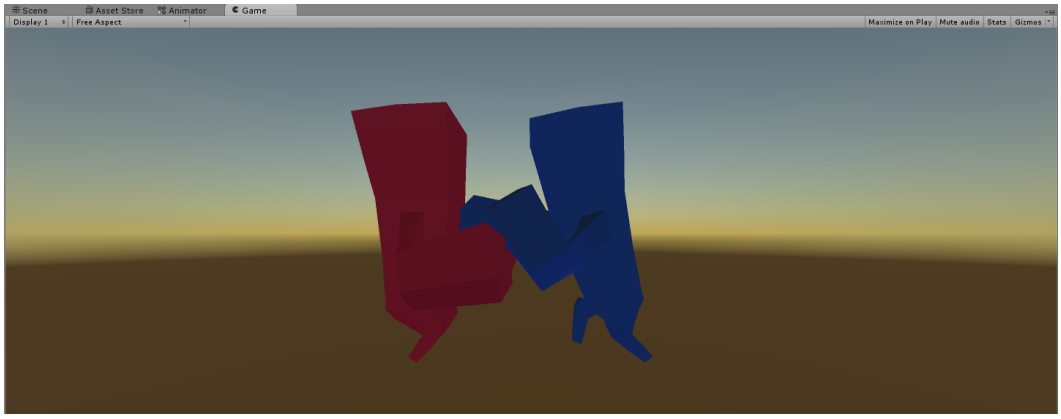

Inspector
InputManager
Axes
Size
18
Horizontal
Vertical
Fire1
Name
Fire1
Descriptive Nar
Descriptive Neg
Negative Buttor
Positive Button
left ctrl

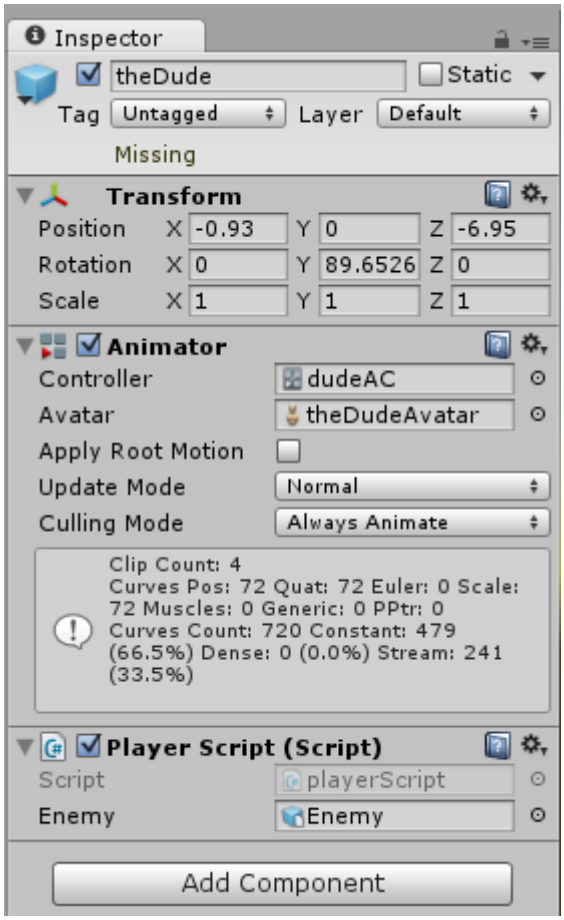

Inspector
theDude
Static
Tag
Untagged
Layer
Default
Model
Select
Revert
Open
Transform
Position
X -0.93
Y 0
Z -6.95
Rotation
X 0
Y 89.652
Z 0
Scale
X 1
Y 1
Z 1
Animator
Controller
dudeAC
Avatar
theDudeAvatar
Apply Root Motion
Update Mode
Normal
Culling Mode
Cull Update Transforms
Clip Count: 4
Curves Pos: 72 Quat: 72 Euler: 0 Scale: 72 Muscles: 0 Generic: 0 PPtr: 0
Curves Count: 720 Constant: 479
(66.5%) Dense: 0 (0.0%) Stream: 241
(33.5%)
Player Script (Script)
Script
playerScript
Add Component

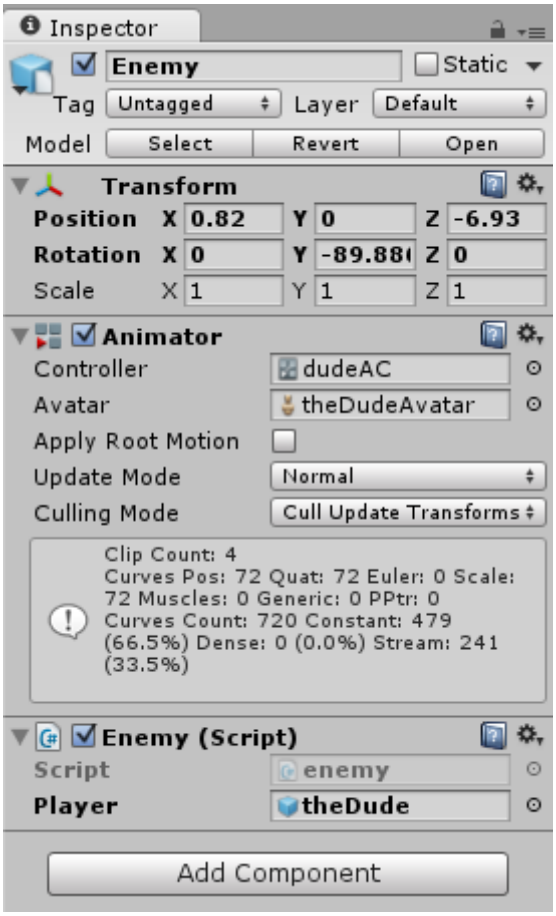



Scene
Asset Store
Animator
Game
Shaded
2D
Gizmos
Persp

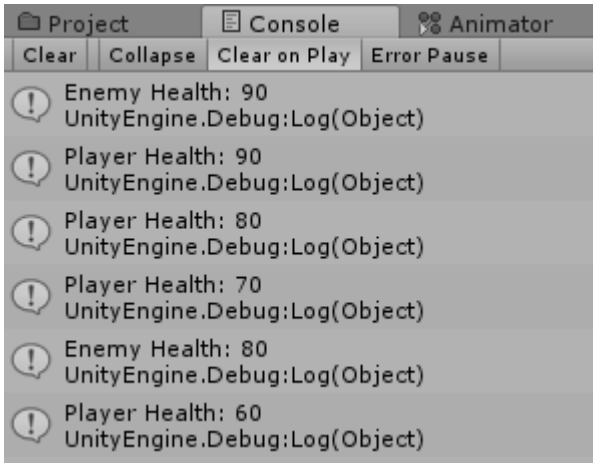

Inspector
Enemy
Static
Tag
Untagged
Layer
Default
Model
Select
Revert
Open
Transform
Position X 0.82 Y 0 Z -6.93
Rotation X 0 Y -89.88 Z 0
Scale X 1 Y 1 Z 1
Animator
Controller
dudeAC
Avatar
theDudeAvatar
Apply Root Motion
Update Mode
Normal
Culling Mode
Cull Update Transforms

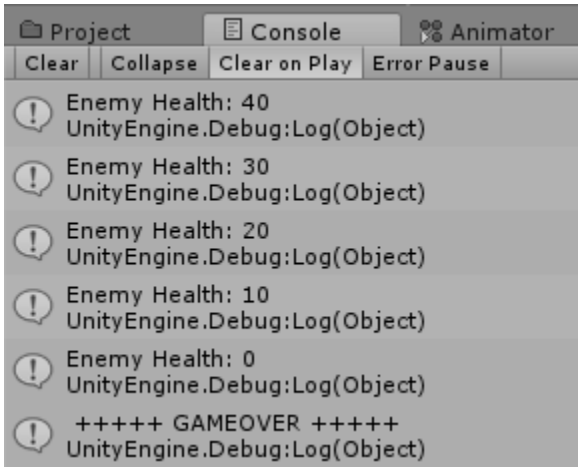

Scene
Asset Store
Animator
Game
Display 1
Free Aspect
Maximize on Play
Mute audio
Stats
Gizmos

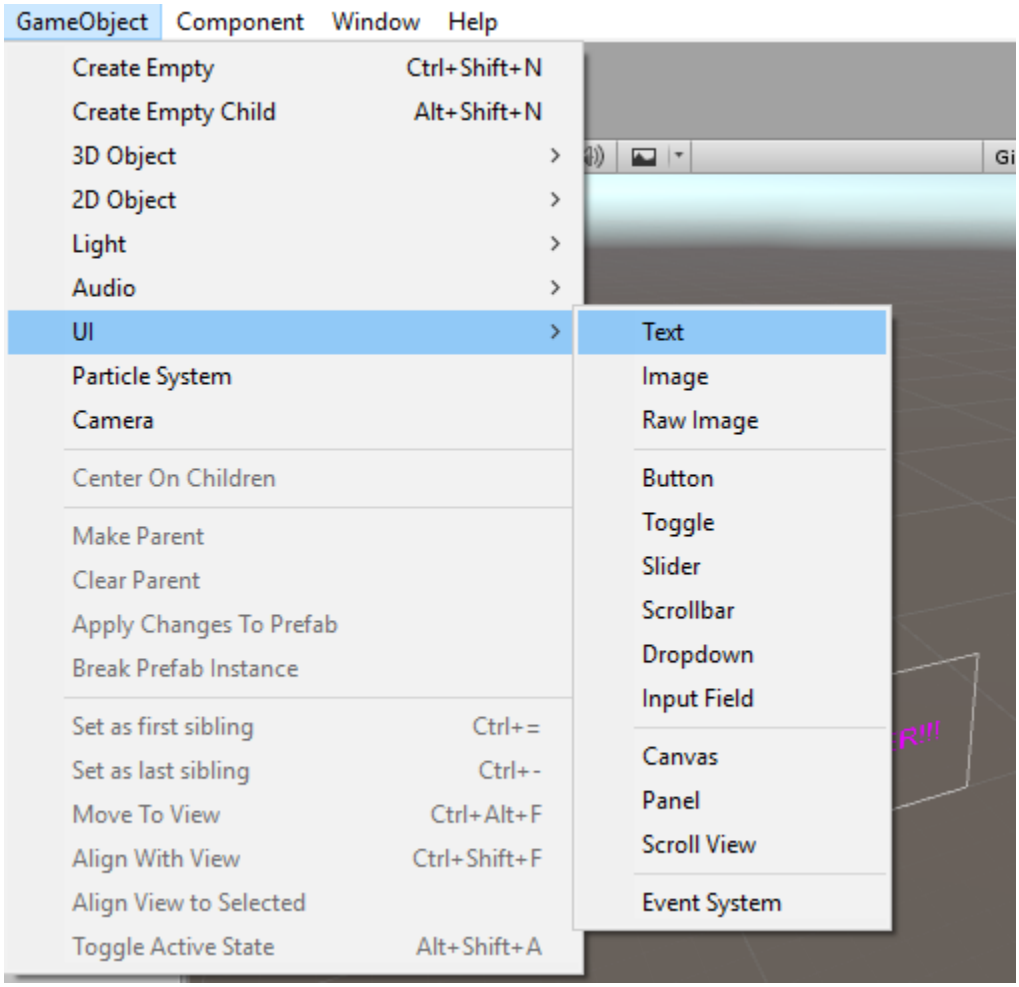

Inspector
theDude
Static
Tag
Untagged
Layer
Default
Missing
Transform
Position
X -0.93
Y 0
Z -6.95
Rotation
X 0
Y 89.6526
Z 0
Scale
X 1
Y 1
Z 1
Animator
Controller
dudeAC
Avatar
theDudeAvatar
Apply Root Motion
Update Mode
Normal
Culling Mode
Always Animate
Clip Count: 4
Curves Pos: 72 Quat: 72 Euler: 0 Scale: 72 Muscles: 0 Generic: 0 PPtr: 0
Curves Count: 720 Constant: 479 (66.5%) Dense: 0 (0.0%) Stream: 241 (33.5%)
Player Script (Script)
Script
playerScript
Enemy
Enemy
Add Component

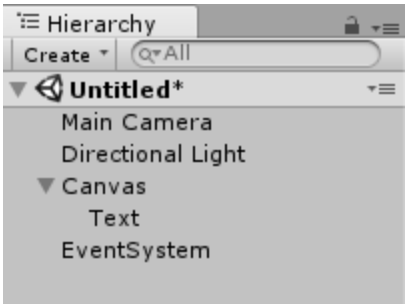

Inspector
Enemy
Static
Tag
Untagged
Layer
Default
Model
Select
Revert
Open
Transform
Position
X 0.82
Y 0
Z -6.93
Rotation
X 0
Y -89.88
Z 0
Scale
X 1
Y 1
Z 1
Animator
Controller
dudeAC
Avatar
theDudeAvatar
Apply Root Motion
Update Mode
Normal
Culling Mode
Cull Update Transforms
Clip Count: 4
Curves Pos: 72 Quat: 72 Euler: 0 Scale: 72 Muscles: 0 Generic: 0 PPtr: 0
Curves Count: 720 Constant: 479 (66.5%) Dense: 0 (0.0%) Stream: 241 (33.5%)
Enemy (Script)
Script
enemy
Player
theDude
Add Component

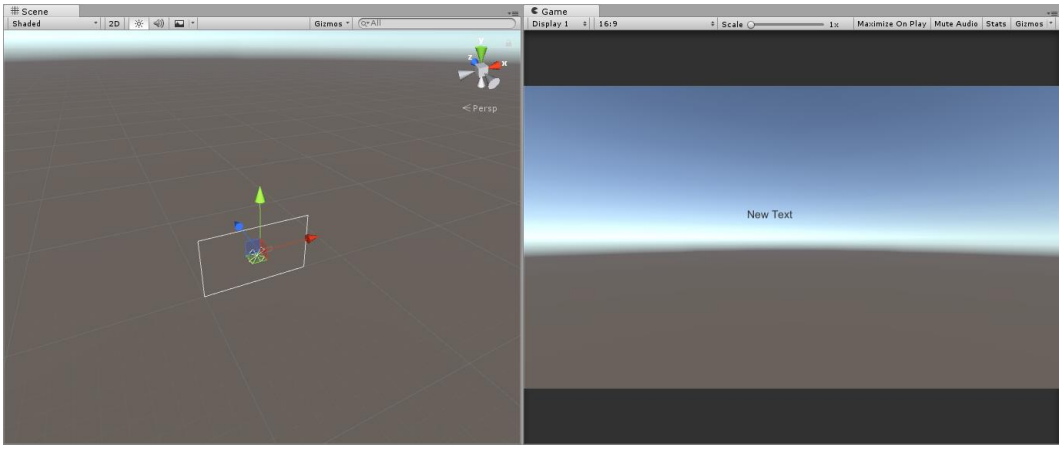
Chapter 5: Gameplay, UI, and Effects

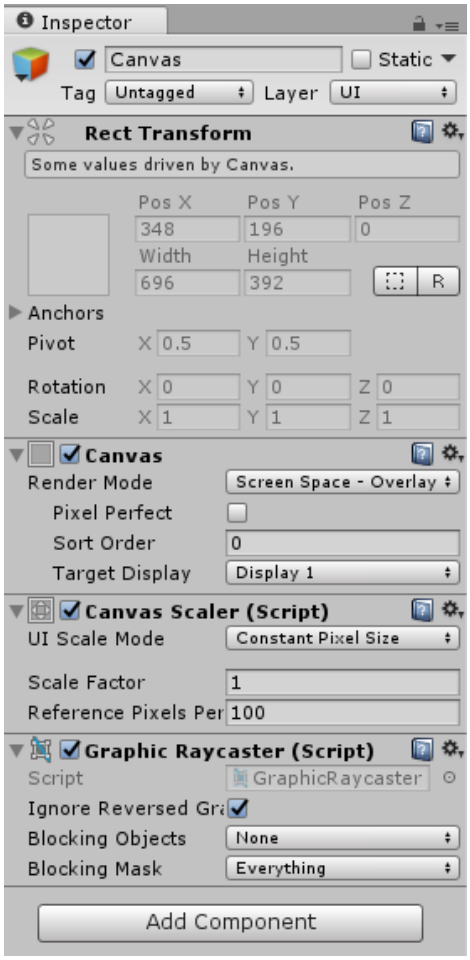


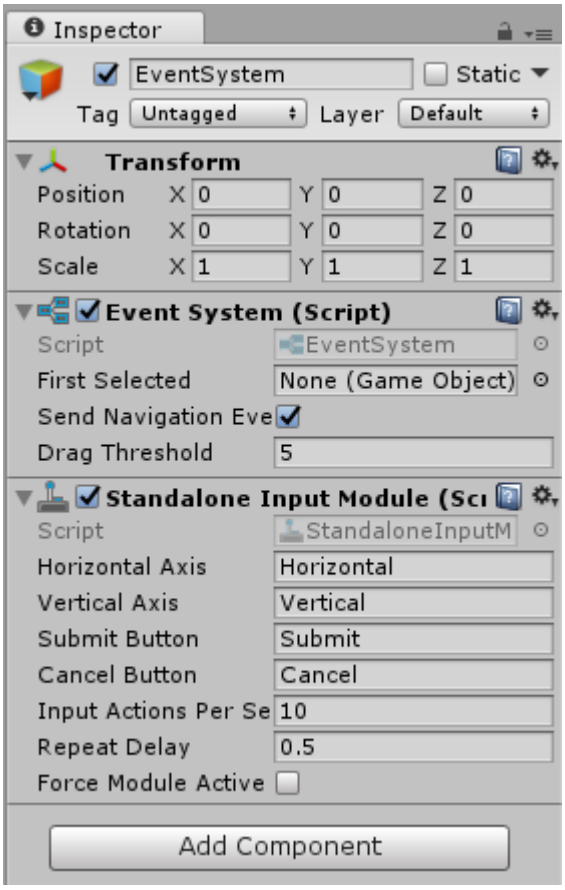


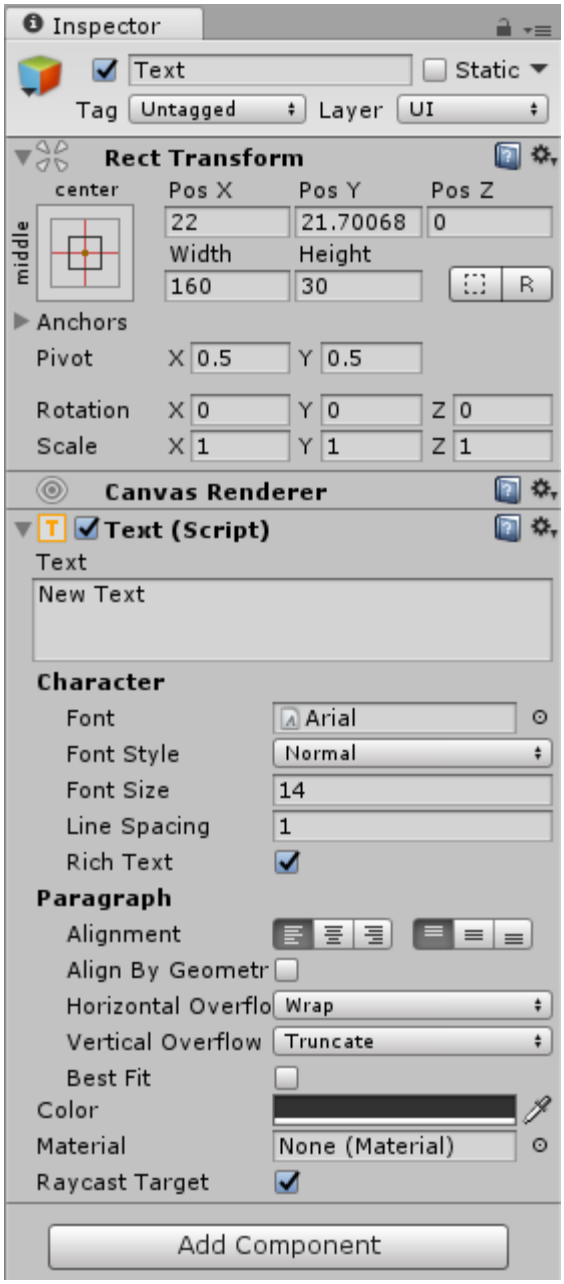

GameObject
Component
Window
Help
Create Empty Ctrl+Shift+N
Create Empty Child Alt+Shift+N
3D Object
2D Object
Light
Audio
UI
Particle System
Camera
Center On Children
Make Parent
Clear Parent
Apply Changes To Prefab
Break Prefab Instance
Set as first sibling Ctrl+=
Set as last sibling Ctrl+-
Move To View Ctrl+Alt+F
Align With View Ctrl+Shift+F
Align View to Selected
Toggle Active State Alt+Shift+A
Text
Image
Raw Image
Button
Toggle
Slider
Scrollbar
Dropdown
Input Field
Canvas
Panel
Scroll View
Event System

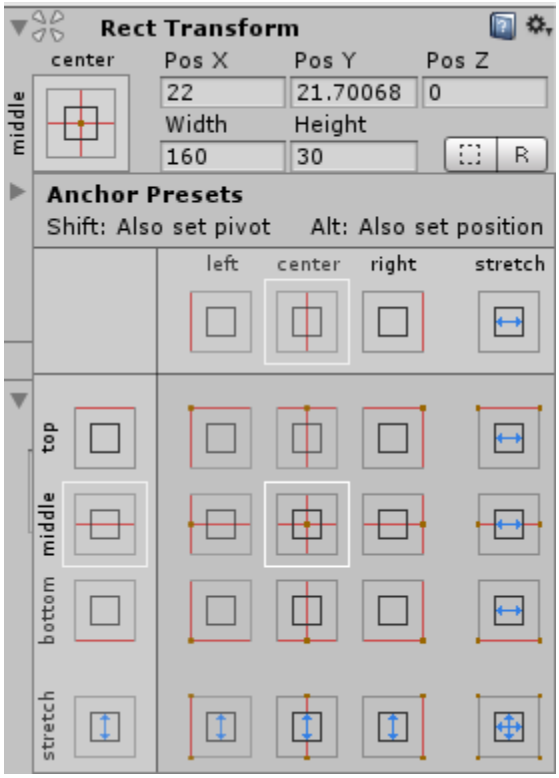

Hierarchy
Create
All
Untitled*
Main Camera
Directional Light
Canvas
Text
EventSystem

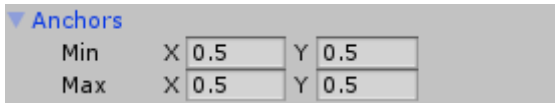

Scene
Shaded
2D
Gizmos
Persp
Game
Display 1
16:9
Scale
Maximize On Play
Mute Audio
Stats
Gizmos
New Text

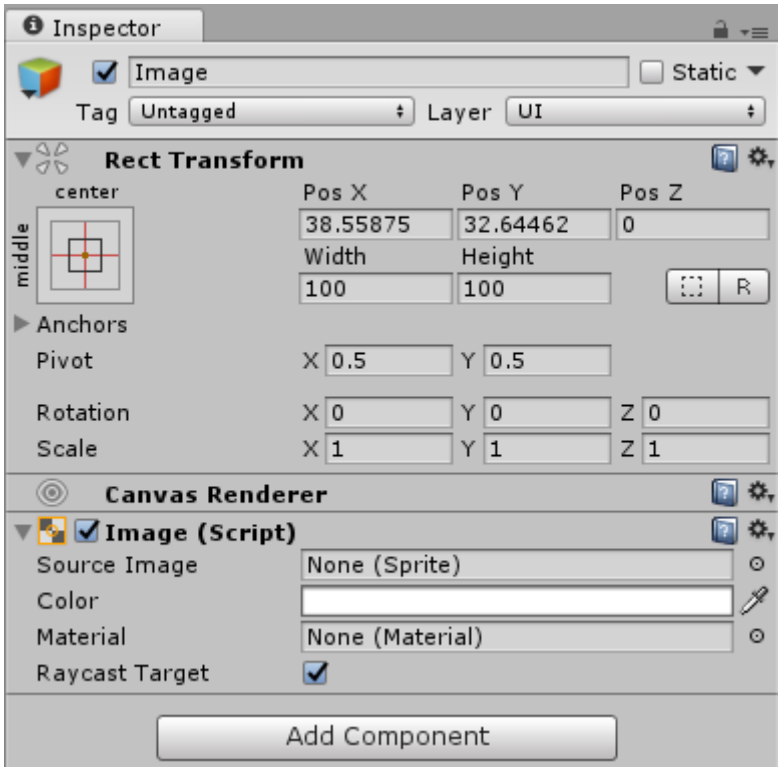

Inspector
Canvas
Static
Tag
Untagged
Layer
UI
Rect Transform
Some values driven by Canvas.
Pos X
Pos Y
Pos Z
348
196
0
Width
Height
696
392
R
Anchors
Pivot
X 0.5
Y 0.5
Rotation
X 0
Y 0
Z 0
Scale
X 1
Y 1
Z 1
Canvas
Render Mode
Screen Space - Overlay
Pixel Perfect
Sort Order
0
Target Display
Display 1
Canvas Scaler (Script)
UI Scale Mode
Constant Pixel Size
Scale Factor
1
Reference Pixels Per
100
Graphic Raycaster (Script)
Script
GraphicRaycaster
Ignore Reversed Gra
Blocking Objects
None
Blocking Mask
Everything
Add Component

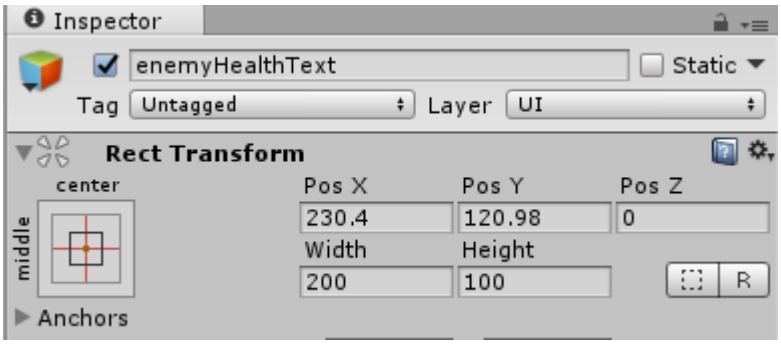

Inspector
EventSystem
Static
Tag
Untagged
Layer
Default
Transform
Position
X 0
Y 0
Z 0
Rotation
X 0
Y 0
Z 0
Scale
X 1
Y 1
Z 1
Event System (Script)
Script
EventSystem
First Selected
None (Game Object)
Send Navigation Eve
Drag Threshold
5
Standalone Input Module (Sc
Script
StandaloneInputM
Horizontal Axis
Horizontal
Vertical Axis
Vertical
Submit Button
Submit
Cancel Button
Cancel
Input Actions Per Se
10
Repeat Delay
0.5
Force Module Active
Add Component

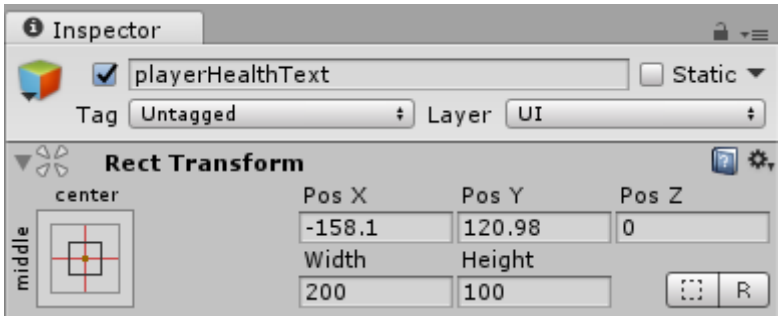

Inspector
Text
Static
Tag
Untagged
Layer
UI
Rect Transform
center
middle
Pos X
Pos Y
Pos Z
22
21.70068
0
Width
Height
160
30
R
Anchors
Pivot
X 0.5
Y 0.5
Rotation
X 0
Y 0
Z 0
Scale
X 1
Y 1
Z 1
Canvas Renderer
Text (Script)
Text
New Text
Character
Font
Arial
Font Style
Normal
Font Size
14
Line Spacing
1
Rich Text
Paragraph
Alignment
Align By Geometr
Horizontal Overflo
Wrap
Vertical Overflow
Truncate
Best Fit
Color
Material
None (Material)
Raycast Target
Add Component

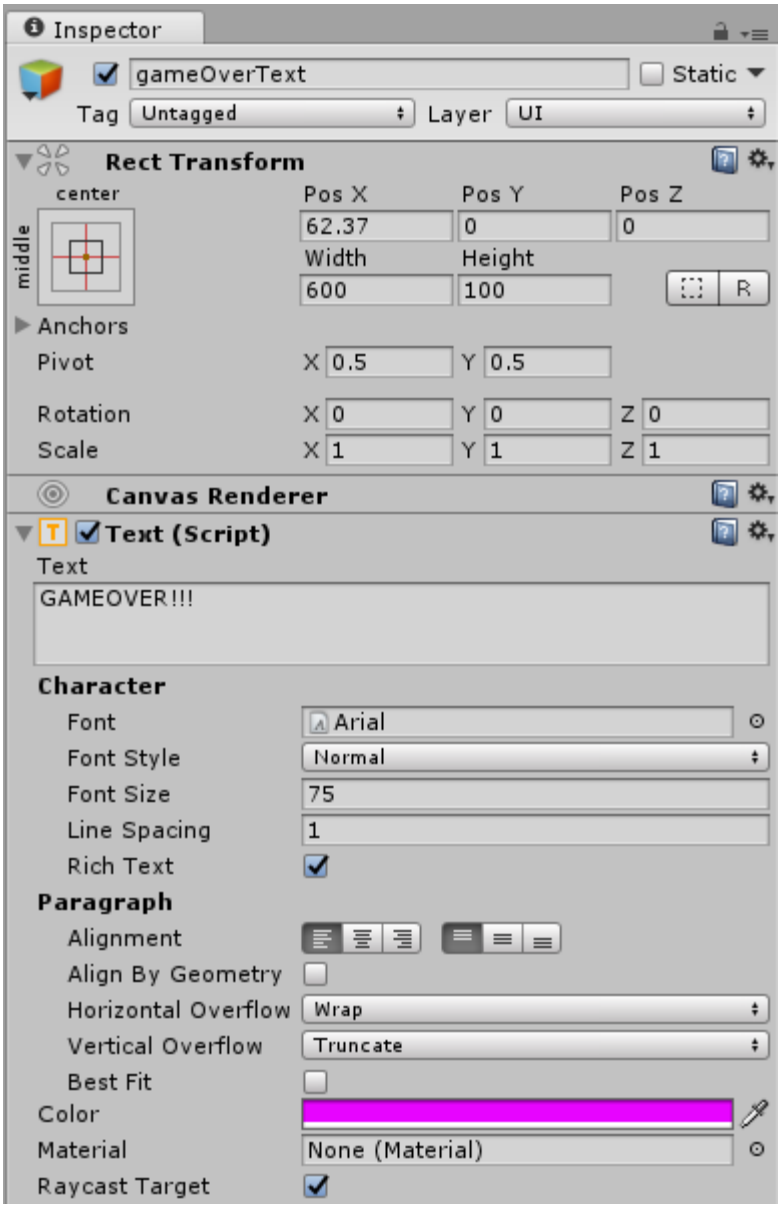

Rect Transform
center
middle
Pos X
Pos Y
Pos Z
22
21.70068
0
Width
Height
160
30
R
Anchor Presets
Shift: Also set pivot
Alt: Also set position
left
center
right
stretch
top
middle
bottom
stretch

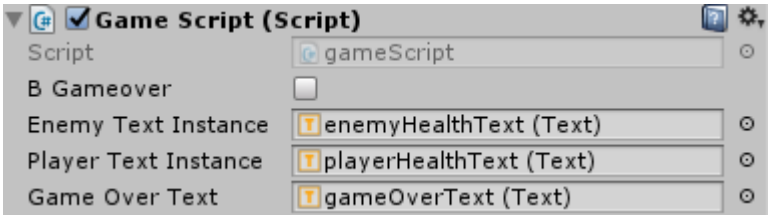

Anchors
Min
X 0.5
Y 0.5
Max
X 0.5
Y 0.5

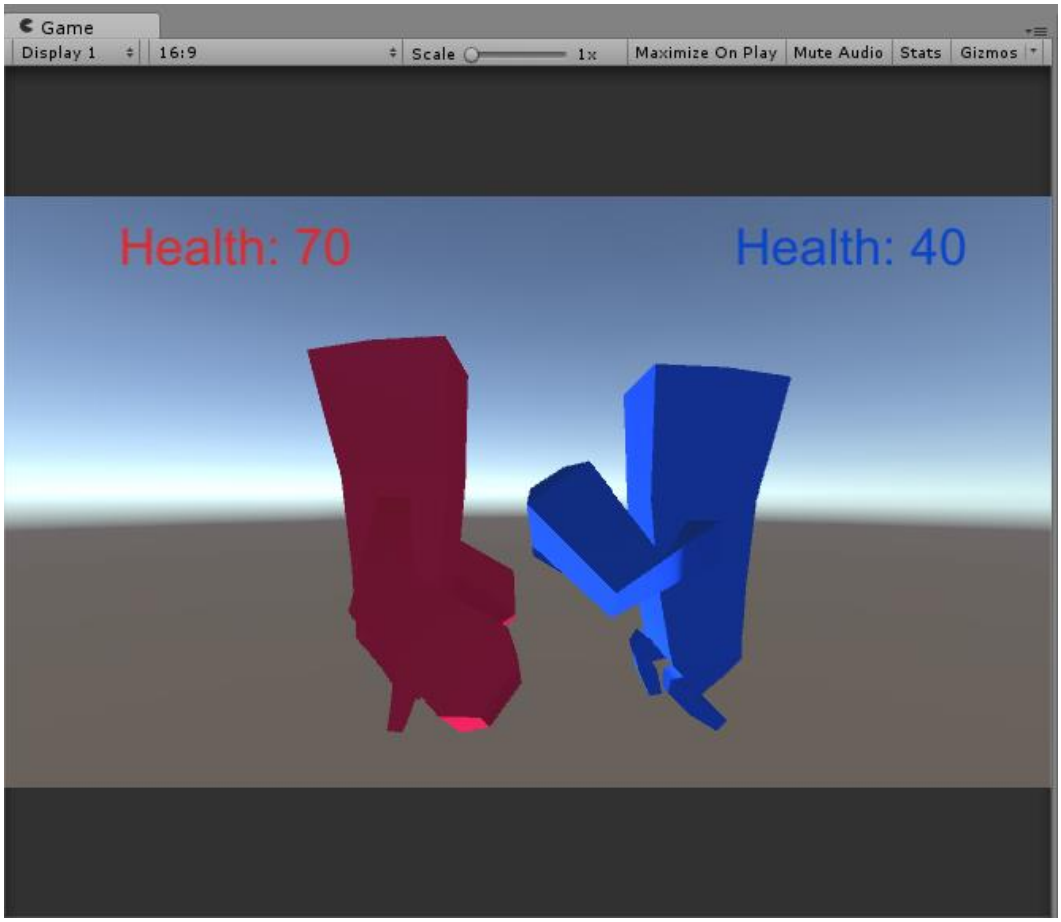

Inspector
Image
Static
Tag
Untagged
Layer
UI
Rect Transform
center
middle
Pos X
Pos Y
Pos Z
38.55875
32.64462
0
Width
Height
100
100
R
Anchors
Pivot
X 0.5
Y 0.5
Rotation
X 0
Y 0
Z 0
Scale
X 1
Y 1
Z 1
Canvas Renderer
Image (Script)
Source Image
None (Sprite)
Color
Material
None (Material)
Raycast Target
Add Component

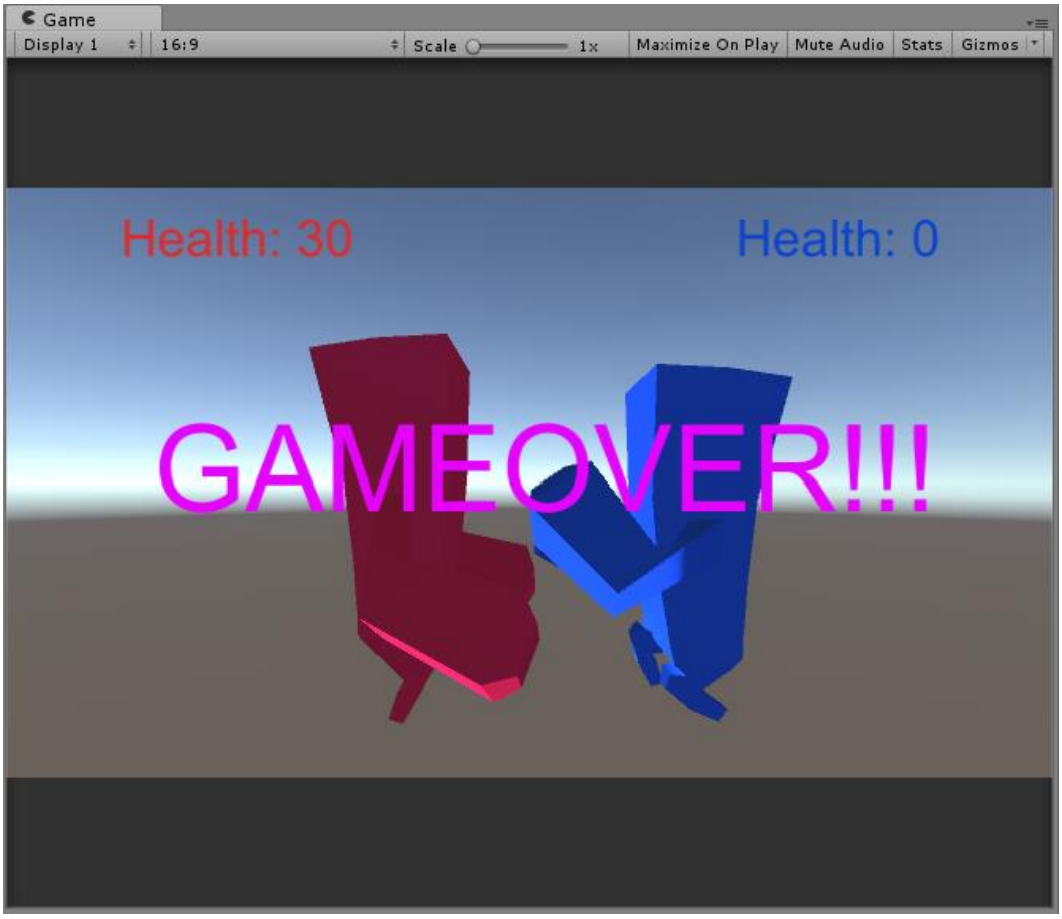

Inspector
enemyHealthText
Static
Tag
Untagged
Layer
UI
Rect Transform
center
middle
Pos X
Pos Y
Pos Z
230.4
120.98
0
Width
Height
200
100
R
Anchors

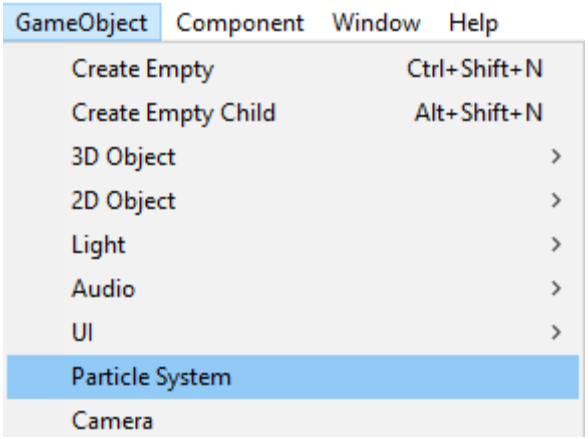

Inspector
playerHealthText
Static
Tag
Untagged
Layer
UI
Rect Transform
center
middle
Pos X
Pos Y
Pos Z
-158.1
120.98
0
Width
Height
200
100
R

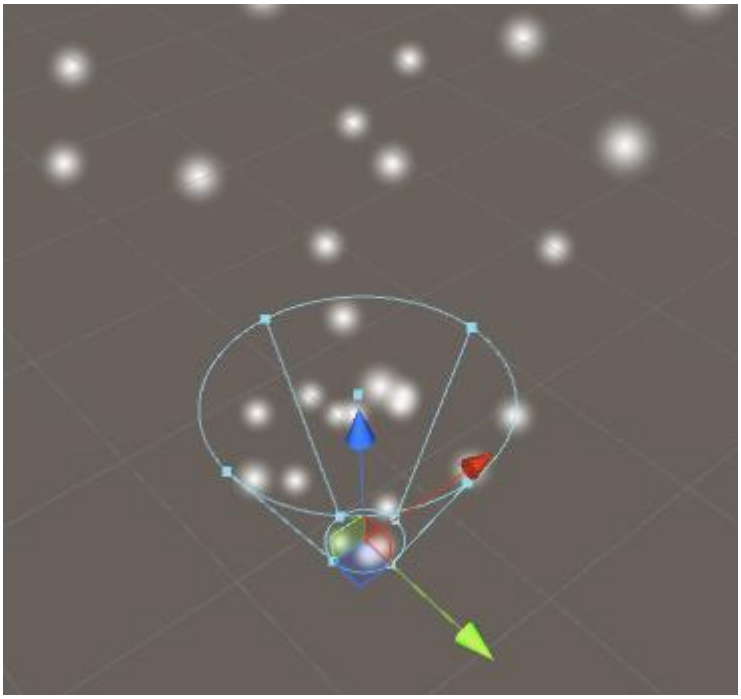

Inspector
gameOverText
Static
Tag
Untagged
Layer
UI
Rect Transform
center
middle
Pos X
Pos Y
Pos Z
62.37
0
0
Width
Height
600
100
Anchors
Pivot
X 0.5
Y 0.5
Rotation
X 0
Y 0
Z 0
Scale
X 1
Y 1
Z 1
Canvas Renderer
Text (Script)
Text
GAMEOVER!!!
Character
Font
Arial
Font Style
Normal
Font Size
75
Line Spacing
1
Rich Text
Paragraph
Alignment
Align By Geometry
Horizontal Overflow
Wrap
Vertical Overflow
Truncate
Best Fit
Color
Material
None (Material)
Raycast Target

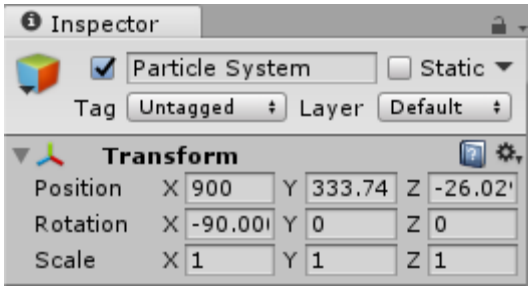

Game Script (Script)
Script
gameScript
B Gameover
Enemy Text Instance
enemyHealthText (Text)
Player Text Instance
playerHealthText (Text)
Game Over Text
gameOverText (Text)

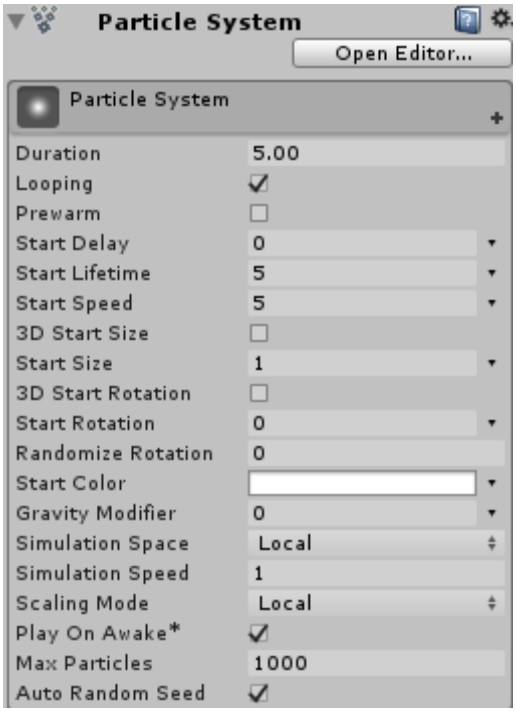

Game
Display 1
16:9
Scale
1x
Maximize On Play
Mute Audio
Stats
Gizmos
Health: 70
Health: 40

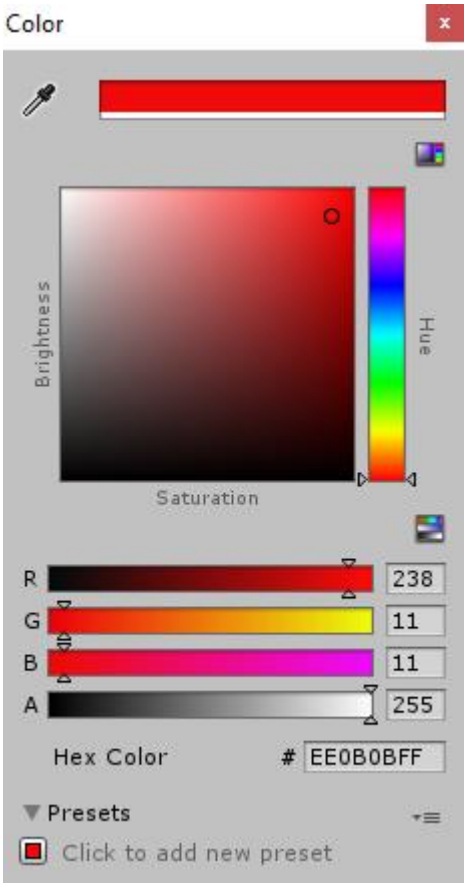

Game
Display 1
16:9
Scale
1x
Maximize On Play
Mute Audio
Stats
Gizmos
Health: 30
Health: 0
GAMEOVER!!!

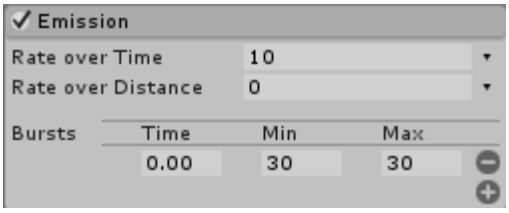

GameObject
Component
Window
Help
Create Empty
Ctrl+Shift+N
Create Empty Child
Alt+Shift+N
3D Object
2D Object
Light
Audio
UI
Particle System
Camera

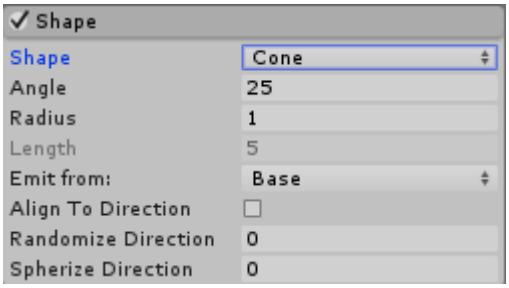



Inspector
Particle System
Static
Tag
Untagged
Layer
Default
Transform
Position
X 900
Y 333.74
Z -26.02
Rotation
X -90.00
Y 0
Z 0
Scale
X 1
Y 1
Z 1

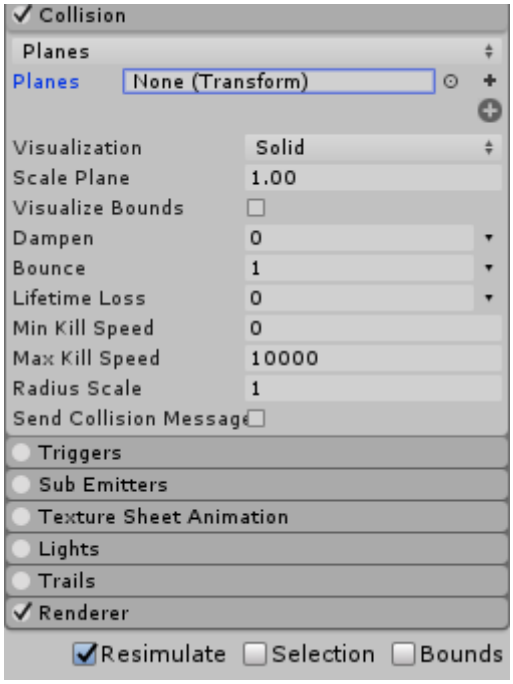

Particle System
Open Editor...
Particle System
Duration 5.00
Looping
Prewarm
Start Delay 0
Start Lifetime 5
Start Speed 5
3D Start Size
Start Size 1
3D Start Rotation
Start Rotation 0
Randomize Rotation 0
Start Color
Gravity Modifier 0
Simulation Space Local
Simulation Speed 1
Scaling Mode Local
Play On Awake*
Max Particles 1000
Auto Random Seed

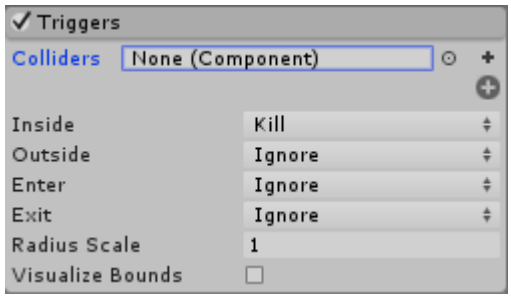

Color
Brightness
Hue
Saturation
R
238
G
11
B
11
A
255
Hex Color
EE0B0BFF
Presets
Click to add new preset

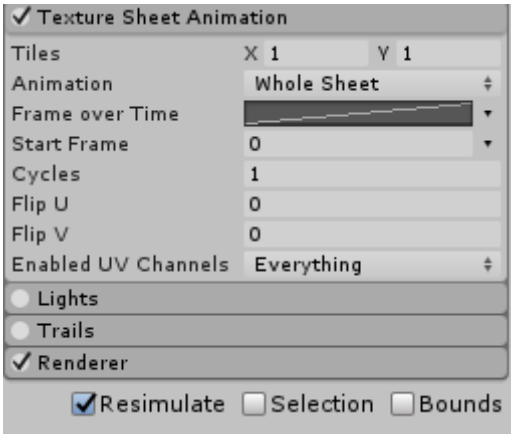

Emission
Rate over Time
10
Rate over Distance
0
Bursts
Time
Min
Max
0.00
30
30

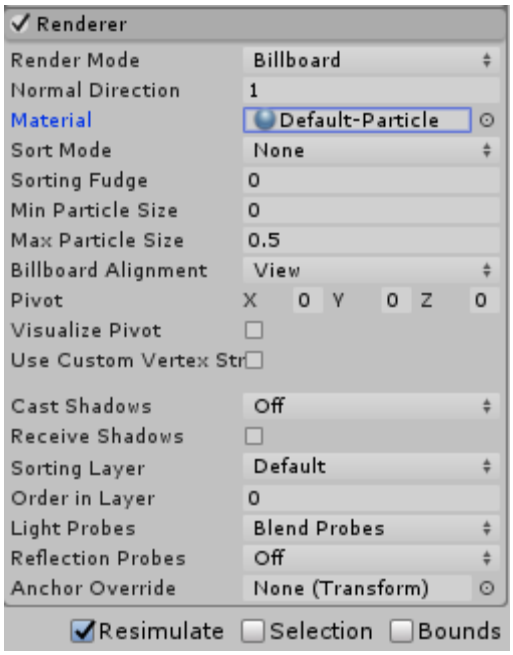

Shape
Shape
Cone
Angle
25
Radius
1
Length
5
Emit from:
Base
Align To Direction
Randomize Direction
0
Spherize Direction
0

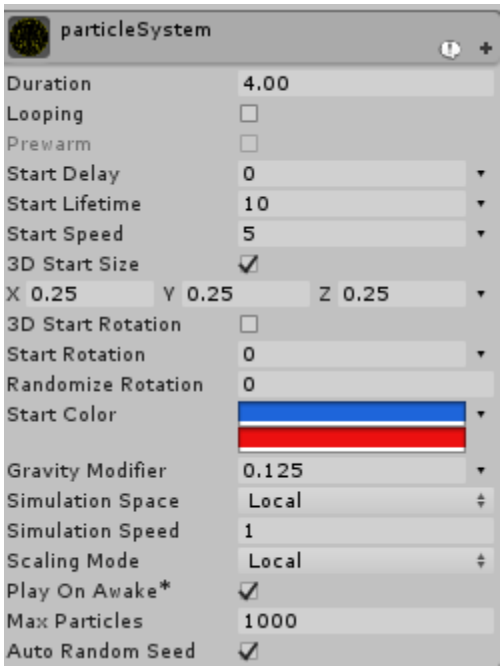
Noise
Separate Axes
Strength
Frequency
0.5
Scroll Speed
Damping
Octaves
1
Octave Multiplier
0.5
Octave Scale
2
Quality
Remap
Remap Curve
Preview

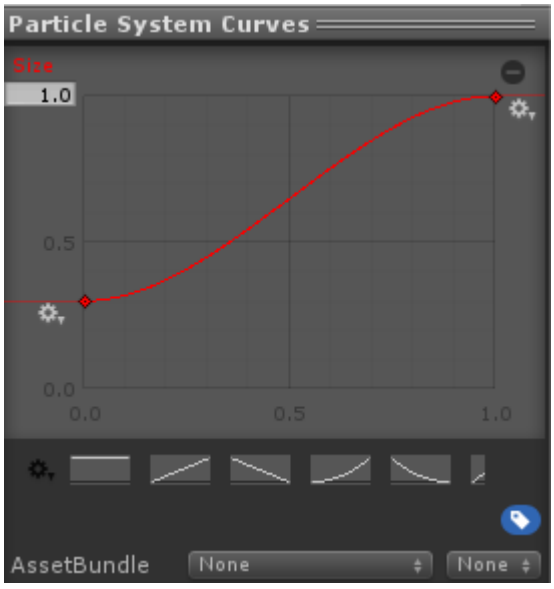

Collision
Planes
Planes
None (Transform)
Visualization
Solid
Scale Plane
1.00
Visualize Bounds
Dampen
0
Bounce
1
Lifetime Loss
0
Min Kill Speed
0
Max Kill Speed
10000
Radius Scale
1
Send Collision Message
Triggers
Sub Emitters
Texture Sheet Animation
Lights
Trails
Renderer
Resimulate
Selection
Bounds

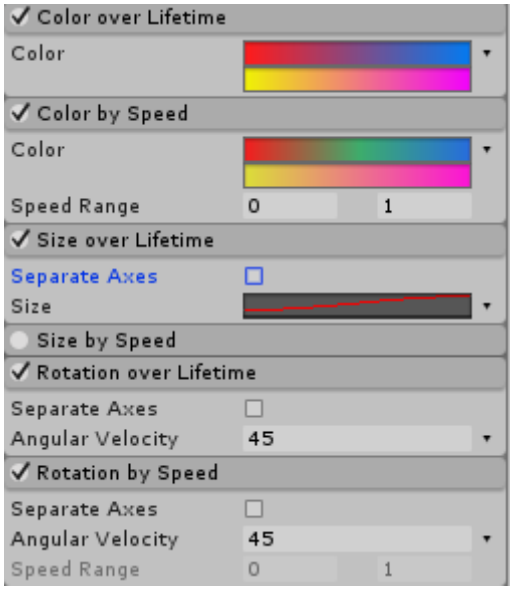

Triggers
Colliders
None (Component)
Inside
Kill
Outside
Ignore
Enter
Ignore
Exit
Ignore
Radius Scale
1
Visualize Bounds

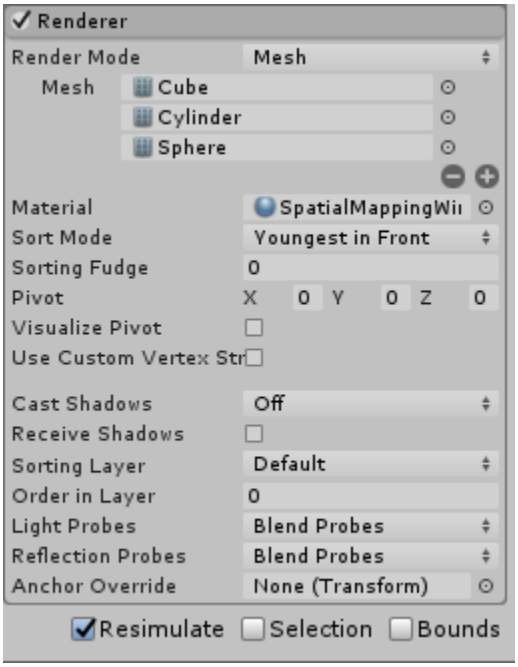

Texture Sheet Animation
Tiles
X 1
Y 1
Animation
Whole Sheet
Frame over Time
Start Frame
0
Cycles
1
Flip U
0
Flip V
0
Enabled UV Channels
Everything
Lights
Trails
Renderer
Resimulate
Selection
Bounds

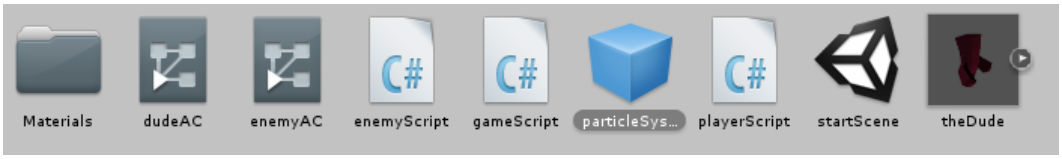

Renderer
Render Mode
Billboard
Normal Direction
1
Material
Default-Particle
Sort Mode
None
Sorting Fudge
0
Min Particle Size
0
Max Particle Size
0.5
Billboard Alignment
View
Pivot
X 0
Y 0
Z 0
Visualize Pivot
Use Custom Vertex Str
Cast Shadows
Off
Receive Shadows
Sorting Layer
Default
Order in Layer
0
Light Probes
Blend Probes
Reflection Probes
Off
Anchor Override
None (Transform)
Resimulate
Selection
Bounds


particleSystem
Duration 4.00
Looping
Prewarm
Start Delay 0
Start Lifetime 10
Start Speed 5
3D Start Size
X 0.25 Y 0.25 Z 0.25
3D Start Rotation
Start Rotation 0
Randomize Rotation 0
Start Color
Gravity Modifier 0.125
Simulation Space Local
Simulation Speed 1
Scaling Mode Local
Play On Awake*
Max Particles 1000
Auto Random Seed


Particle System Curves
Size
1.0
0.5
0.0
0.0
0.5
1.0
AssetBundle
None
None


Color over Lifetime
Color
Color by Speed
Color
Speed Range
0
1
Size over Lifetime
Separate Axes
Size
Size by Speed
Rotation over Lifetime
Separate Axes
Angular Velocity
45
Rotation by Speed
Separate Axes
Angular Velocity
45
Speed Range
0
1

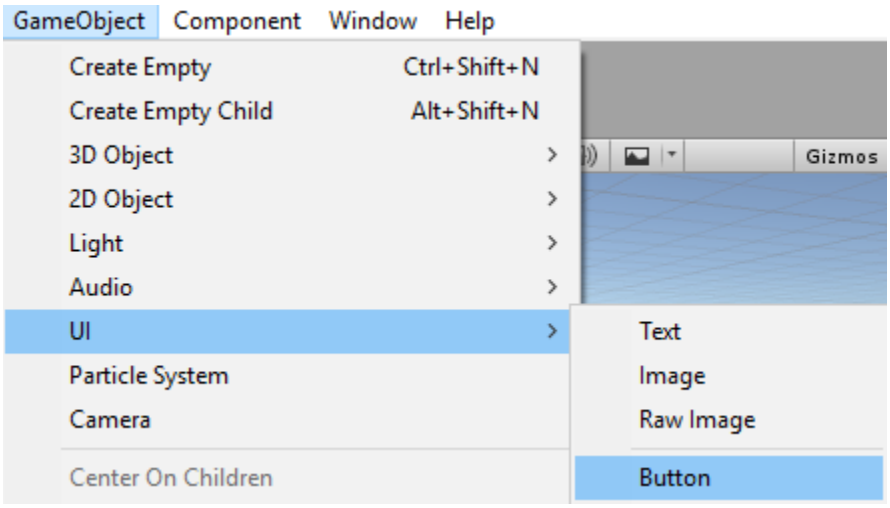

Renderer
Render Mode
Mesh
Mesh
Cube
Cylinder
Sphere
Material
SpatialMappingWi
Sort Mode
Youngest in Front
Sorting Fudge
0
Pivot
X 0 Y 0 Z 0
Visualize Pivot
Use Custom Vertex Str
Cast Shadows
Off
Receive Shadows
Sorting Layer
Default
Order in Layer
0
Light Probes
Blend Probes
Reflection Probes
Blend Probes
Anchor Override
None (Transform)
Resimulate
Selection
Bounds

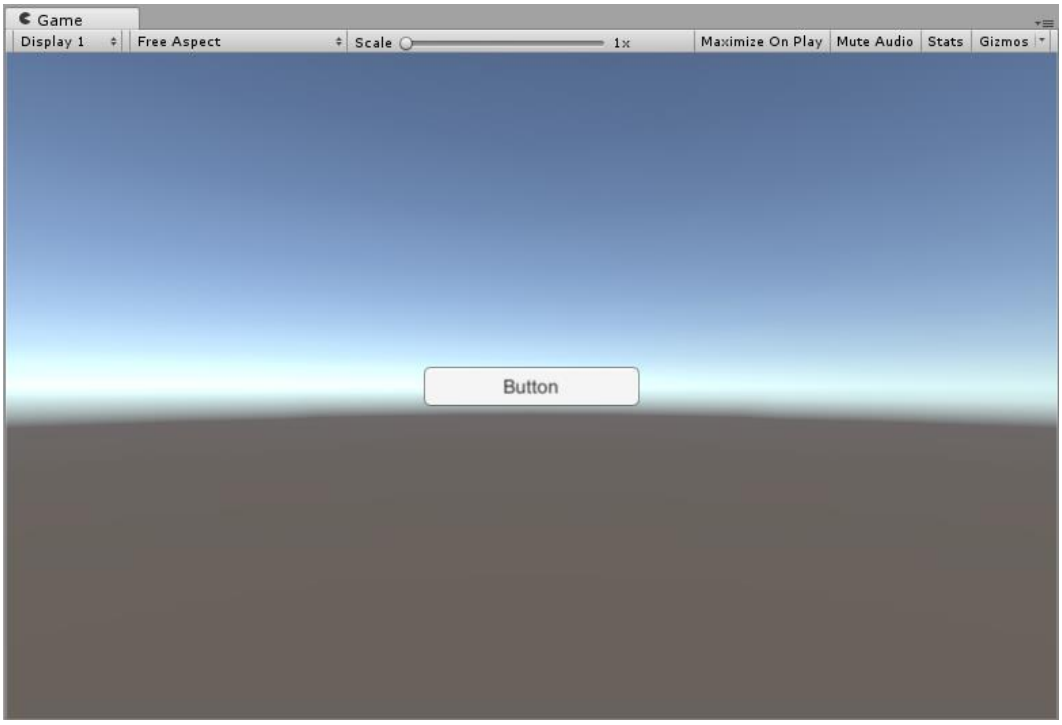

Materials
dudeAC
enemyAC
enemyScript
gameScript
particleSys...
playerScript
startScene
theDude

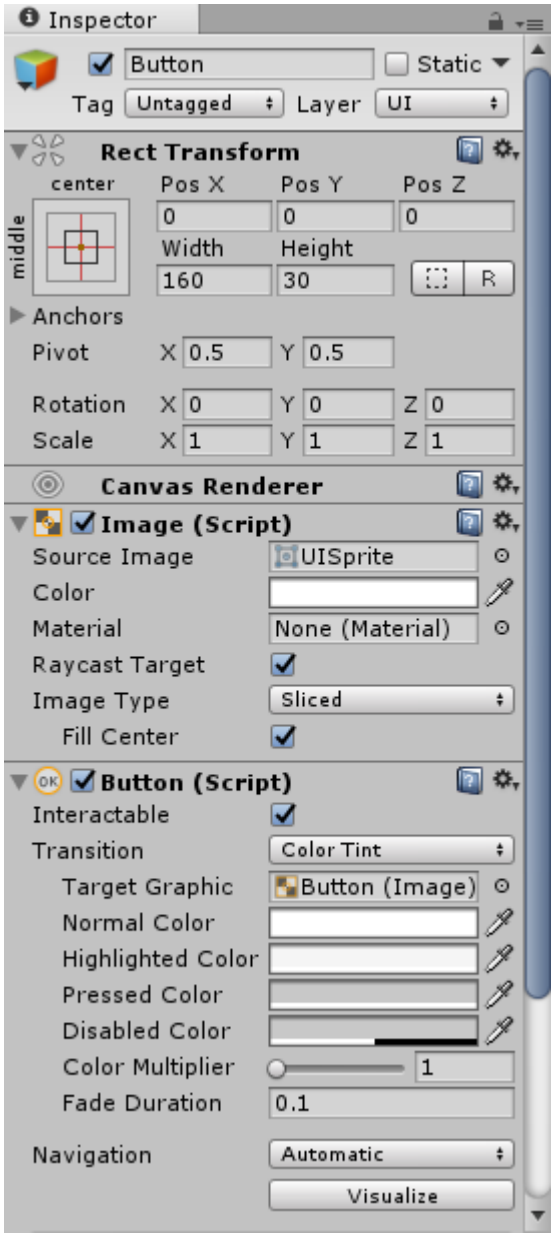
Game Script (Script)
Script
gameScript
B Gameover
Enemy Text Instance
enemyHealthText
Player Text Instance
playerHealthText
Game Over Text
gameOverText (T
Particle Prefab
particleSystem

Game
Display 1
16:9
Scale
1x
Maximize On Play
Mute Audio
Stats
Gizmos
Health: 90
Health: 0
GAMEOVER!!!

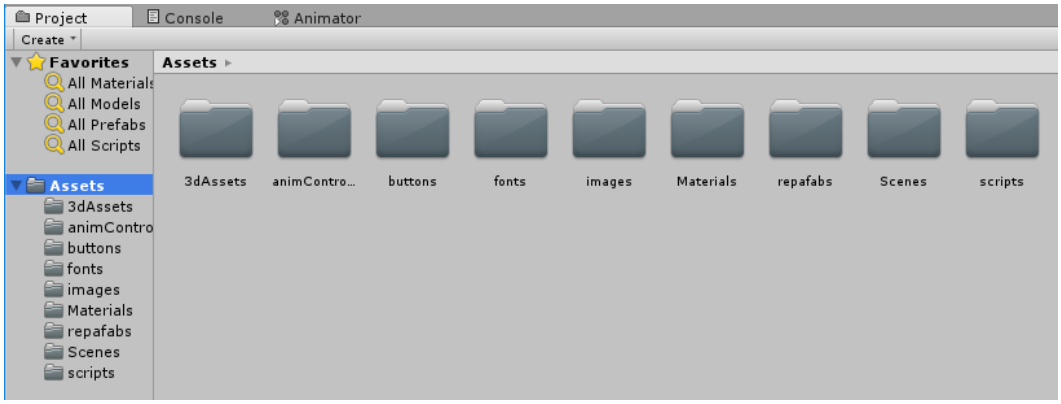
Chapter 6: GameScene and SceneFlow

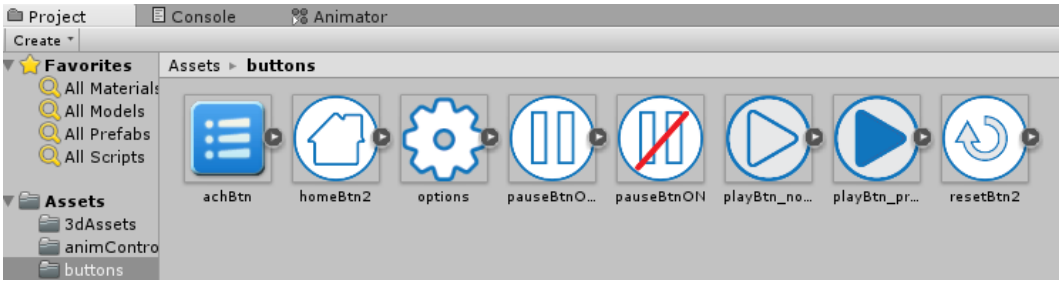


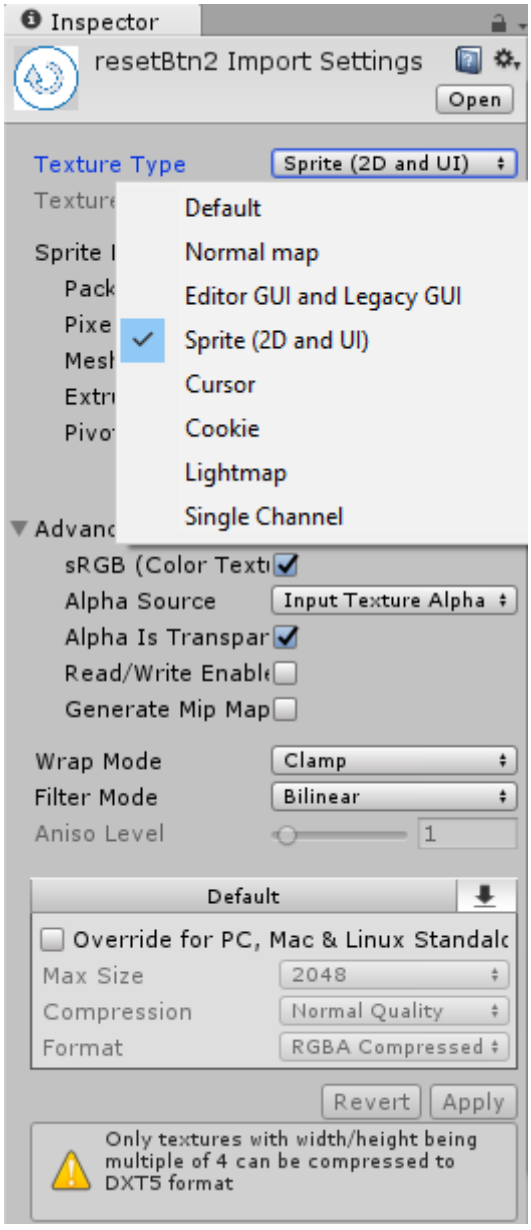

Game
Display 1
Free Aspect
Scale
1x
Maximize On Play
Mute Audio
Stats
Gizmos
Button


Inspector
Button
Static
Tag
Untagged
Layer
UI
Rect Transform
center
middle
Pos X
Pos Y
Pos Z
0
0
0
Width
Height
160
30
R
Anchors
Pivot
X 0.5
Y 0.5
Rotation
X 0
Y 0
Z 0
Scale
X 1
Y 1
Z 1
Canvas Renderer
Image (Script)
Source Image
UISprite
Color
Material
None (Material)
Raycast Target
Image Type
Sliced
Fill Center
Button (Script)
Interactable
Transition
Color Tint
Target Graphic
Button (Image)
Normal Color
Highlighted Color
Pressed Color
Disabled Color
Color Multiplier
1
Fade Duration
0.1
Navigation
Automatic
Visualize

Text (Script)
Text
Button
Character
Font
Arial
Font Style
Normal
Font Size
14
Line Spacing
1
Rich Text
Paragraph
Alignment
Align By Geometr
Horizontal Overflo
Wrap
Vertical Overflow
Truncate
Best Fit
Color
Material
None (Material)
Raycast Target


Project
Console
Animator
Create
Favorites
All Materials
All Models
All Prefabs
All Scripts
Assets
3dAssets
animContro
buttons
fonts
images
Materials
repafabs
Scenes
scripts
Assets
3dAssets
animContro...
buttons
fonts
images
Materials
repafabs
Scenes
scripts


Project
Console
Animator
Create
Favorites
All Materials
All Models
All Prefabs
All Scripts
Assets
3dAssets
animContro
buttons
Assets ▸ buttons
achBtn
homeBtn2
options
pauseBtnO...
pauseBtnON
playBtn_no...
playBtn_pr...
resetBtn2


Inspector
resetBtn2 Import Settings
Open
Texture Type
Sprite (2D and UI)
Default
Normal map
Editor GUI and Legacy GUI
Sprite (2D and UI)
Cursor
Cookie
Lightmap
Single Channel
sRGB (Color Texture)
Alpha Source
Input Texture Alpha
Alpha Is Transparency
Read/Write Enable
Generate Mip Map
Wrap Mode
Clamp
Filter Mode
Bilinear
Aniso Level
1
Default
Override for PC, Mac & Linux Standalone
Max Size
2048
Compression
Normal Quality
Format
RGBA Compressed
Revert
Apply
Only textures with width/height being multiple of 4 can be compressed to DXT5 format

startScene
Main Camera
Enemy
theDude
enemyHealth
enemyHealthText
playerHealthText
gameOverText
resetBtn

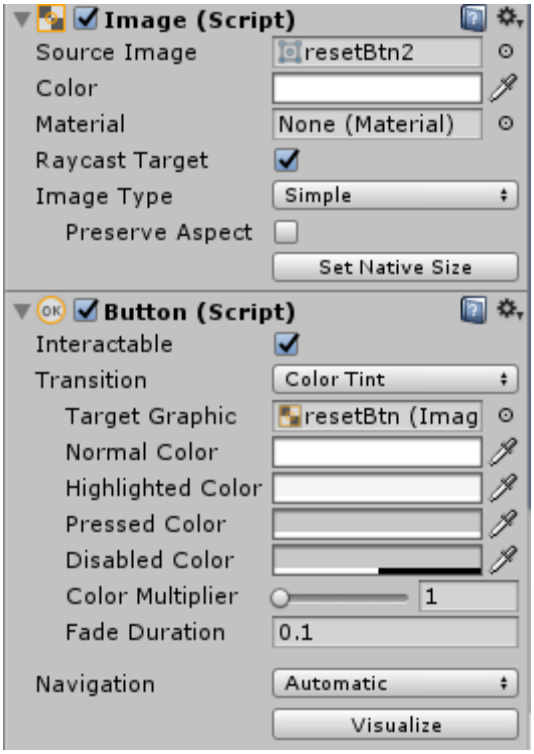
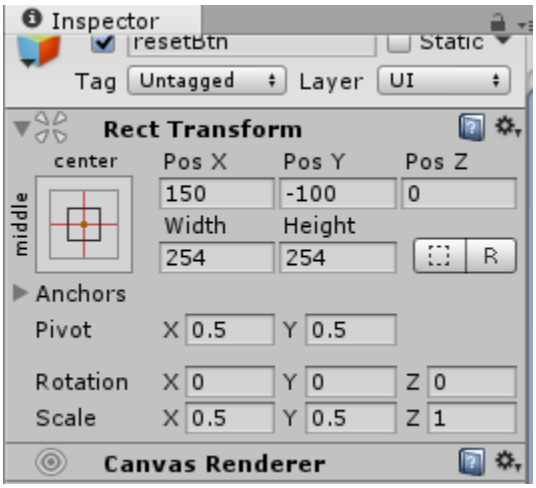
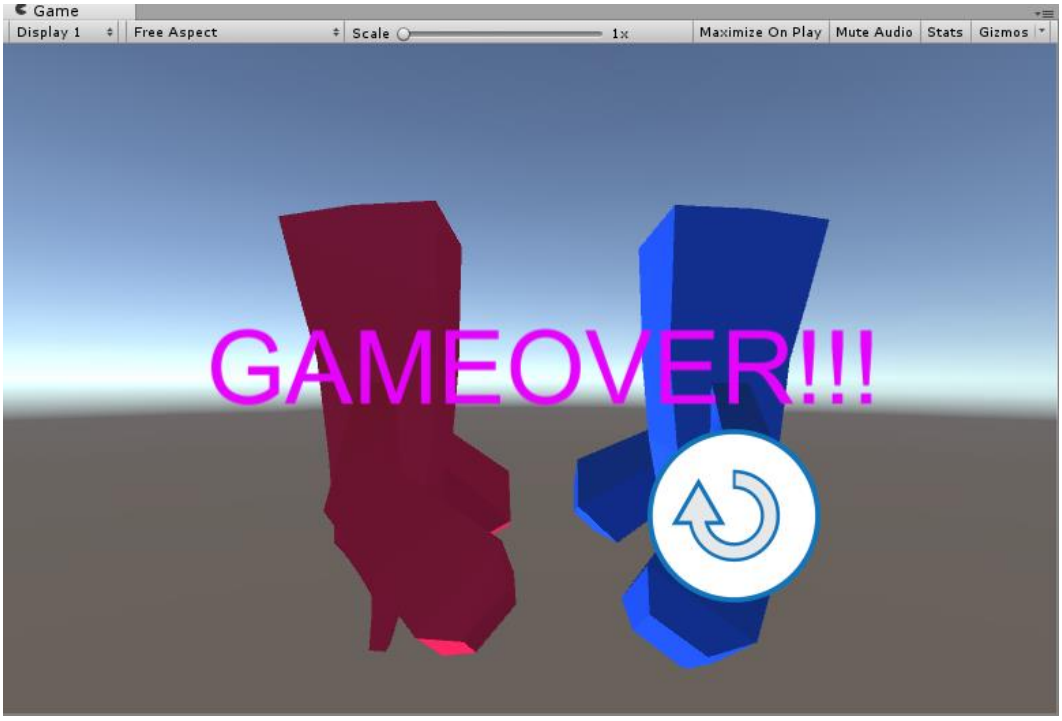
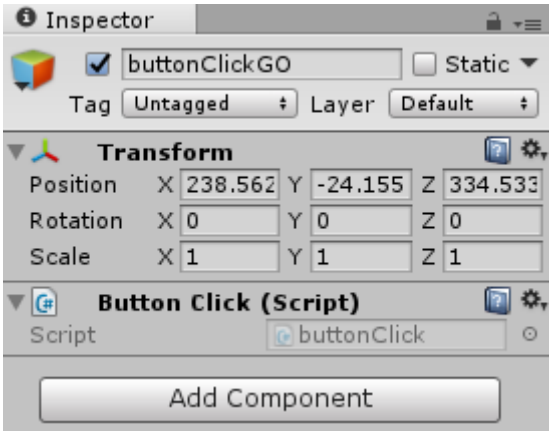


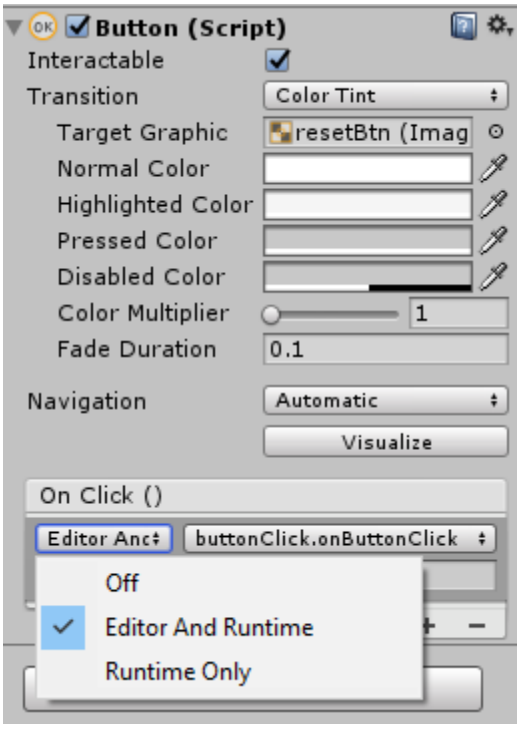
Image (Script)
Source Image
resetBtn2
Color
Material
None (Material)
Raycast Target
Image Type
Simple
Preserve Aspect
Set Native Size
Button (Script)
Interactable
Transition
Color Tint
Target Graphic
resetBtn (Imag
Normal Color
Highlighted Color
Pressed Color
Disabled Color
Color Multiplier
1
Fade Duration
0.1
Navigation
Automatic
Visualize

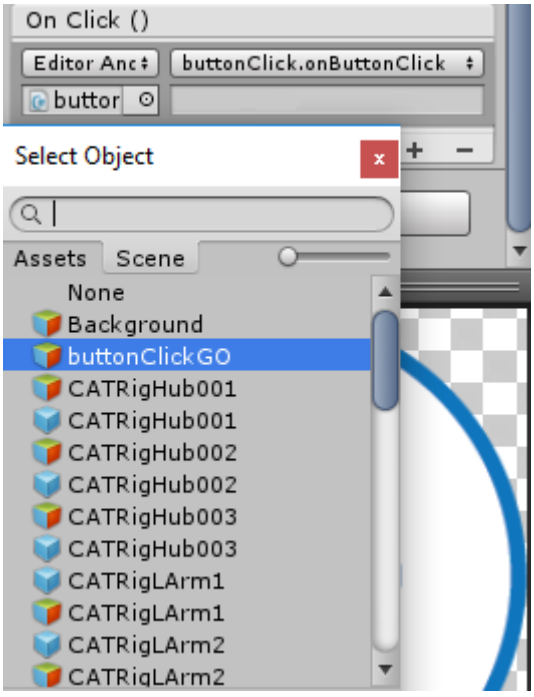
resetBtn
resetBtn
Image Size: 254x254

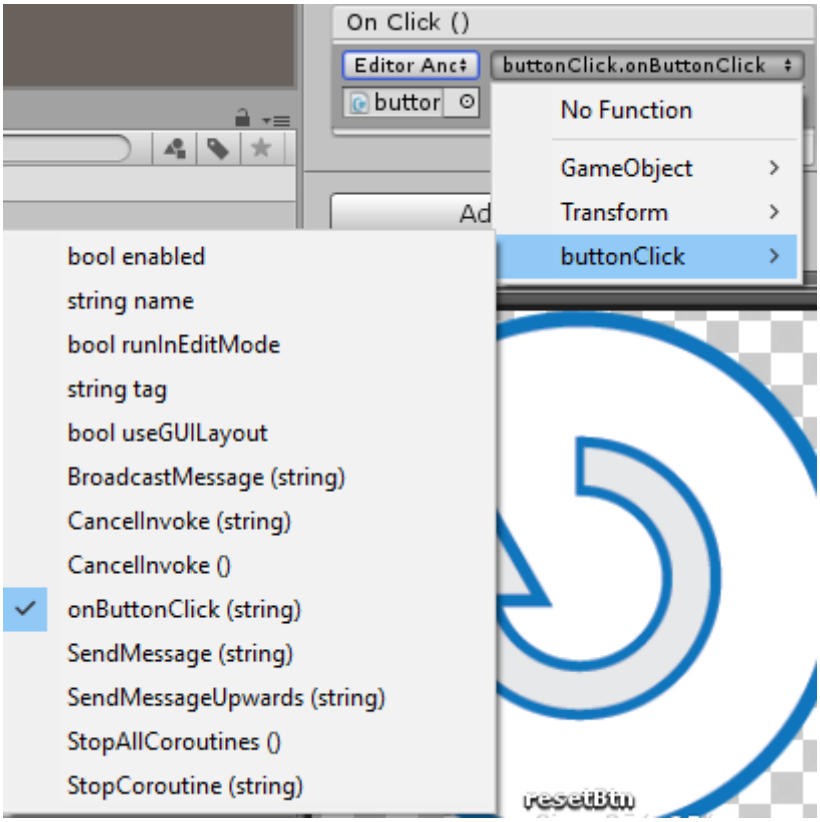

Inspector
resetBtn
Static
Tag
Untagged
Layer
UI
Rect Transform
center
middle
Pos X
Pos Y
Pos Z
150
-100
0
Width
Height
254
254
R
Anchors
Pivot
X 0.5
Y 0.5
Rotation
X 0
Y 0
Z 0
Scale
X 0.5
Y 0.5
Z 1
Canvas Renderer

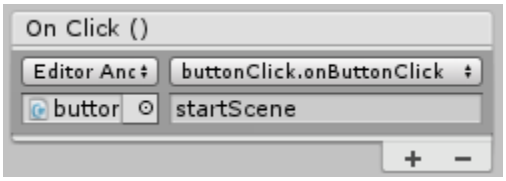

Game
Display 1
Free Aspect
Scale
1x
Maximize On Play
Mute Audio
Stats
Gizmos
GAMEOVER!!!

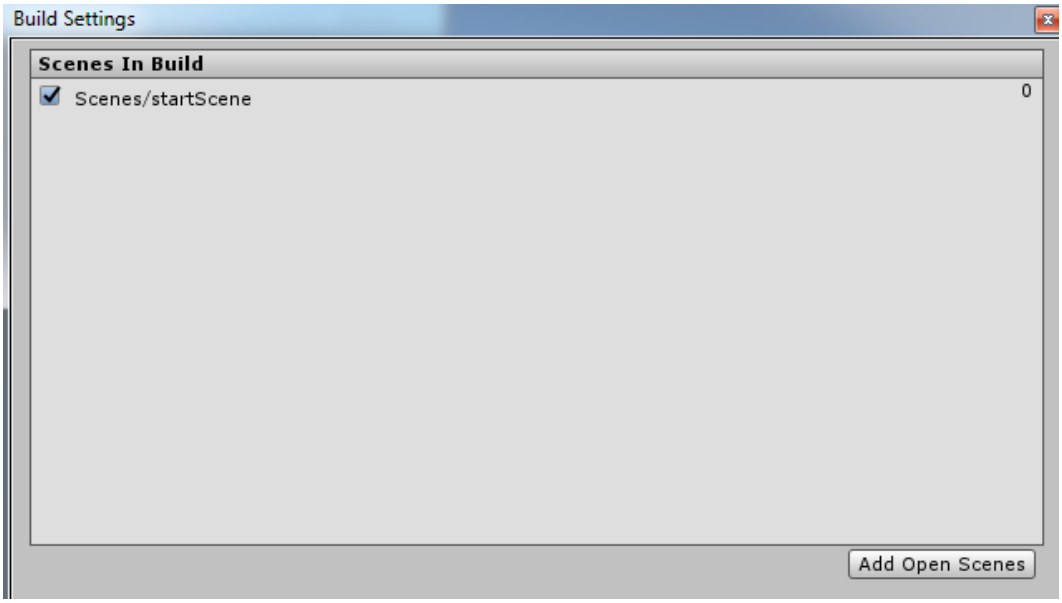

Inspector
buttonClickGO
Static
Tag
Untagged
Layer
Default
Transform
Position
X 238.562
Y -24.155
Z 334.533
Rotation
X 0
Y 0
Z 0
Scale
X 1
Y 1
Z 1
Button Click (Script)
Script
buttonClick
Add Component

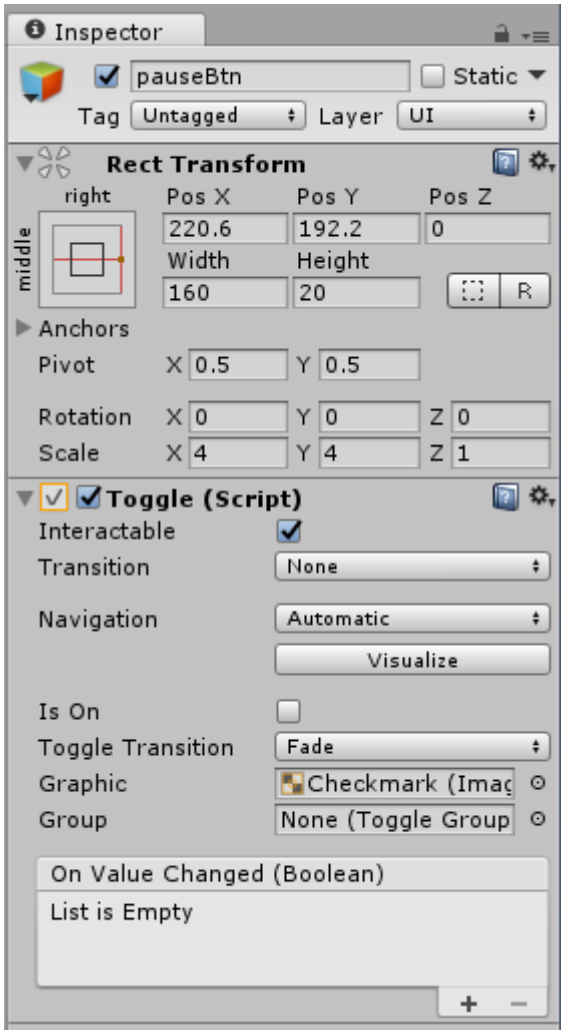

Button (Script)
Interactable
Transition
Color Tint
Target Graphic
resetBtn (Imag
Normal Color
Highlighted Color
Pressed Color
Disabled Color
Color Multiplier
1
Fade Duration
0.1
Navigation
Automatic
Visualize
On Click ()
Editor Anc
buttonClick.onButtonClick
Off
Editor And Runtime
Runtime Only

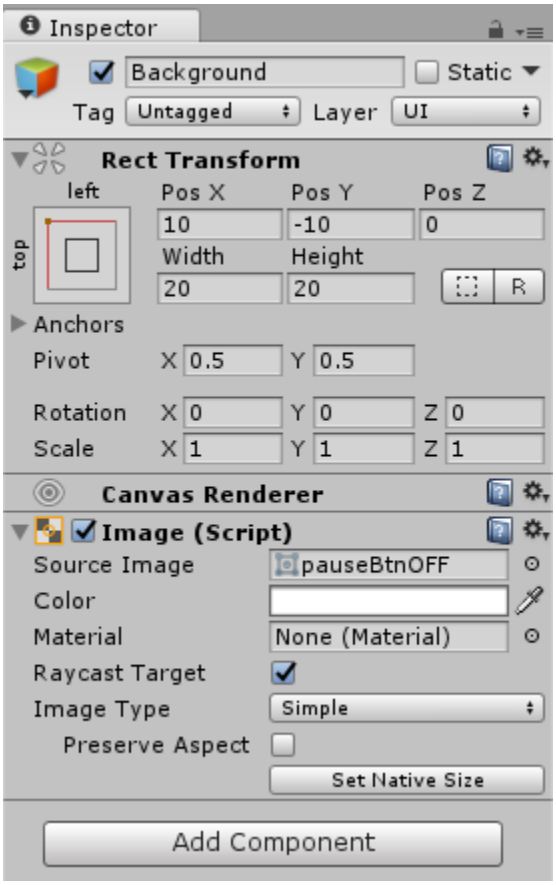

On Click ()
Editor Anc
buttonClick.onButtonClick
buttor
Select Object
Assets
Scene
None
Background
buttonClickGO
CATRigHub001
CATRigHub001
CATRigHub002
CATRigHub002
CATRigHub003
CATRigHub003
CATRigLArm1
CATRigLArm1
CATRigLArm2
CATRigLArm2

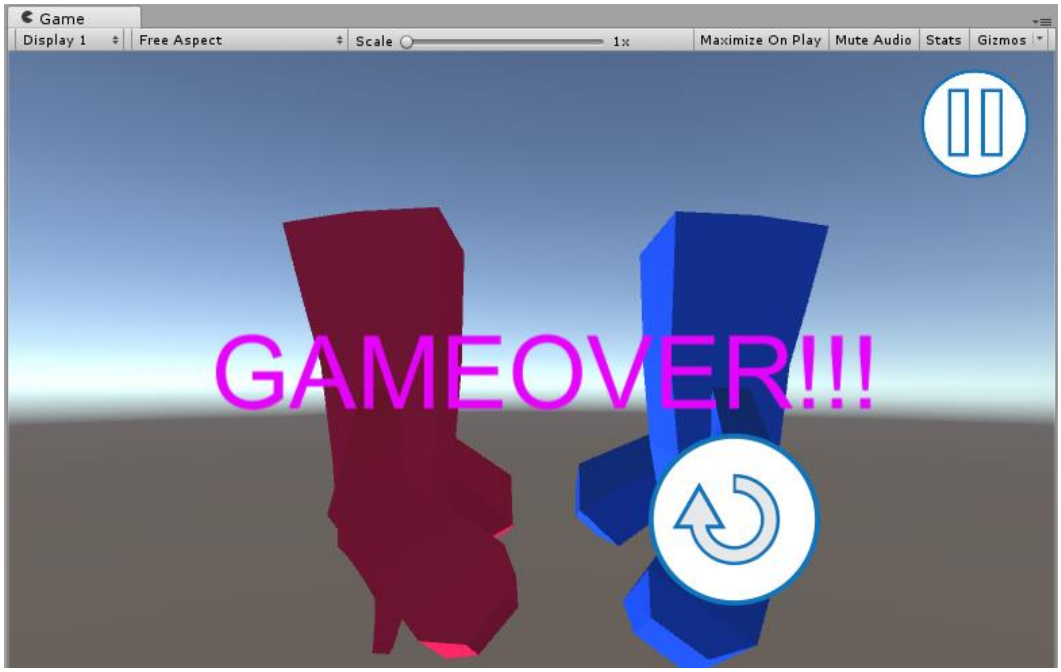

On Click ()
Editor Anc
buttonClick.onButtonClick
buttor
No Function
GameObject
Transform
buttonClick
bool enabled
string name
bool runInEditMode
string tag
bool useGUILayout
BroadcastMessage (string)
CancelInvoke (string)
CancelInvoke ()
onButtonClick (string)
SendMessage (string)
SendMessageUpwards (string)
StopAllCoroutines ()
StopCoroutine (string)

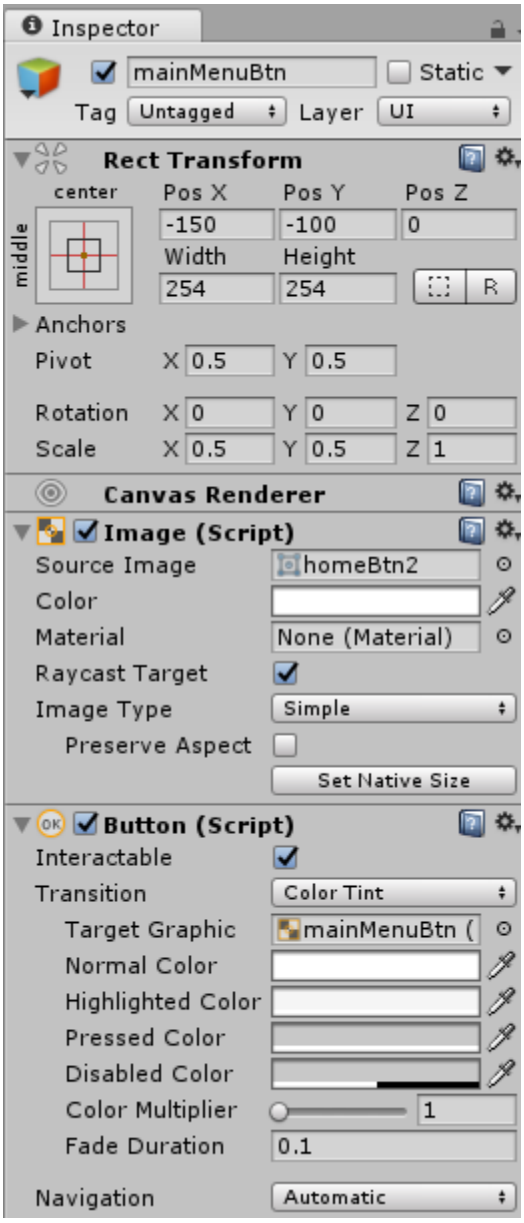

On Click ()
Editor Anc
buttonClick.onButtonClick
buttor
startScene

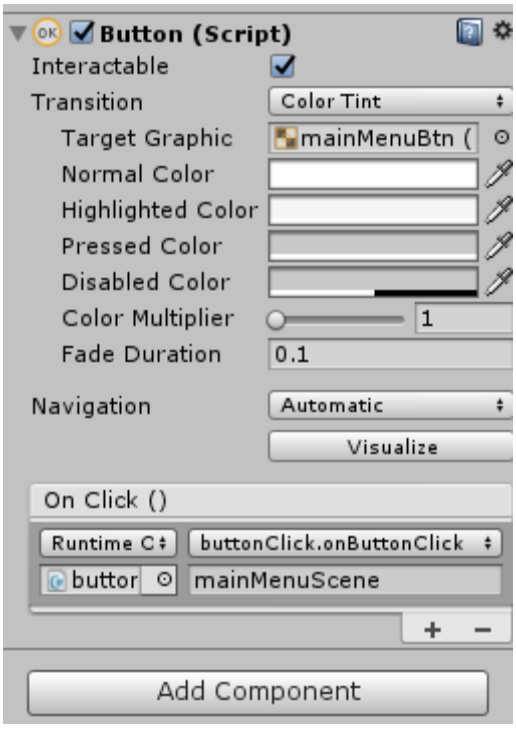

Build Settings
Scenes In Build
Scenes/startScene
0
Add Open Scenes

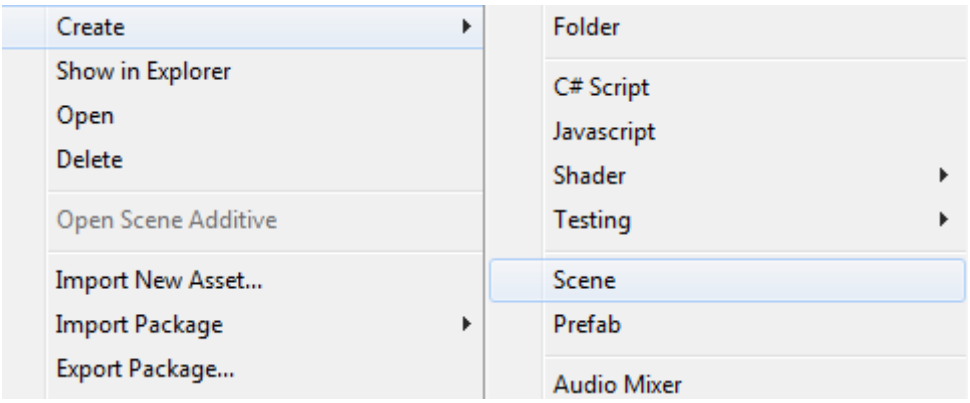

Inspector
pauseBtn
Static
Tag
Untagged
Layer
UI
Rect Transform
right
middle
Pos X
Pos Y
Pos Z
220.6
192.2
0
Width
Height
160
20
R
Anchors
Pivot
X 0.5
Y 0.5
Rotation
X 0
Y 0
Z 0
Scale
X 4
Y 4
Z 1
Toggle (Script)
Interactable
Transition
None
Navigation
Automatic
Visualize
Is On
Toggle Transition
Fade
Graphic
Checkmark (Imag
Group
None (Toggle Group
On Value Changed (Boolean)
List is Empty

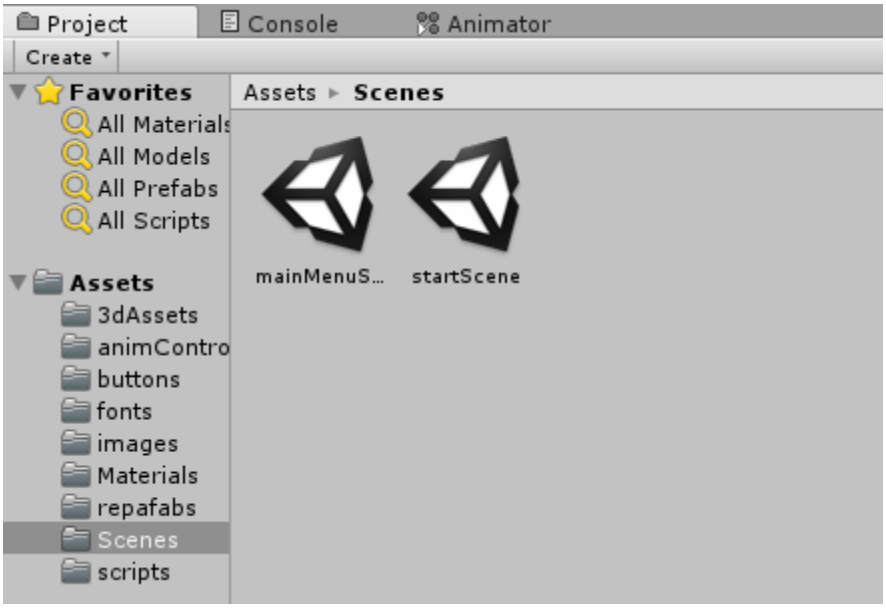

Inspector
Background
Static
Tag
Untagged
Layer
UI
Rect Transform
left
top
Pos X
Pos Y
Pos Z
10
-10
0
Width
Height
20
20
R
Anchors
Pivot
X 0.5
Y 0.5
Rotation
X 0
Y 0
Z 0
Scale
X 1
Y 1
Z 1
Canvas Renderer
Image (Script)
Source Image
pauseBtnOFF
Color
Material
None (Material)
Raycast Target
Image Type
Simple
Preserve Aspect
Set Native Size
Add Component

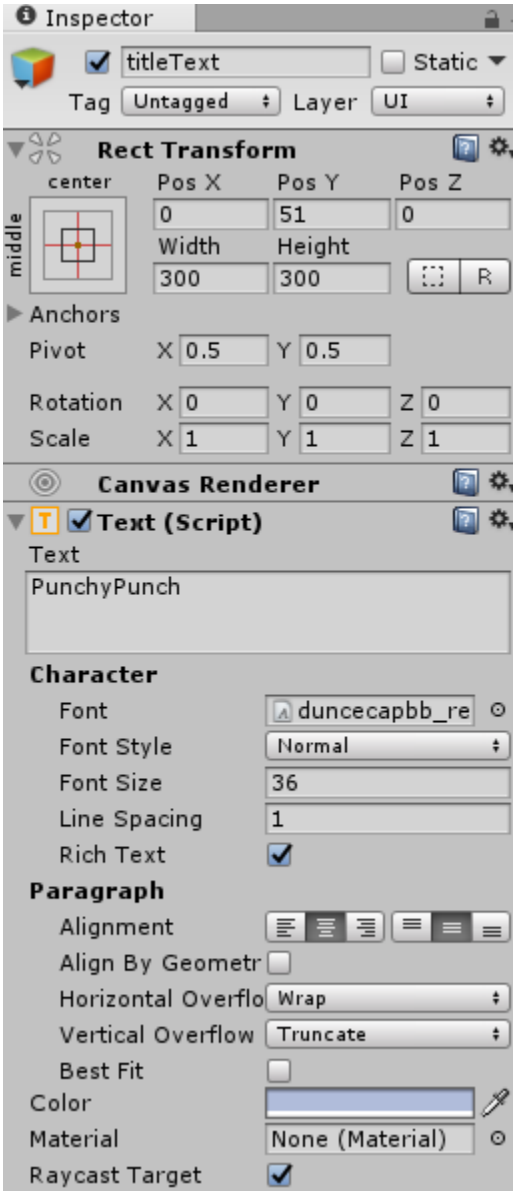

Game
Display 1
Free Aspect
Scale
1x
Maximize On Play
Mute Audio
Stats
Gizmos
GAMEOVER!!!

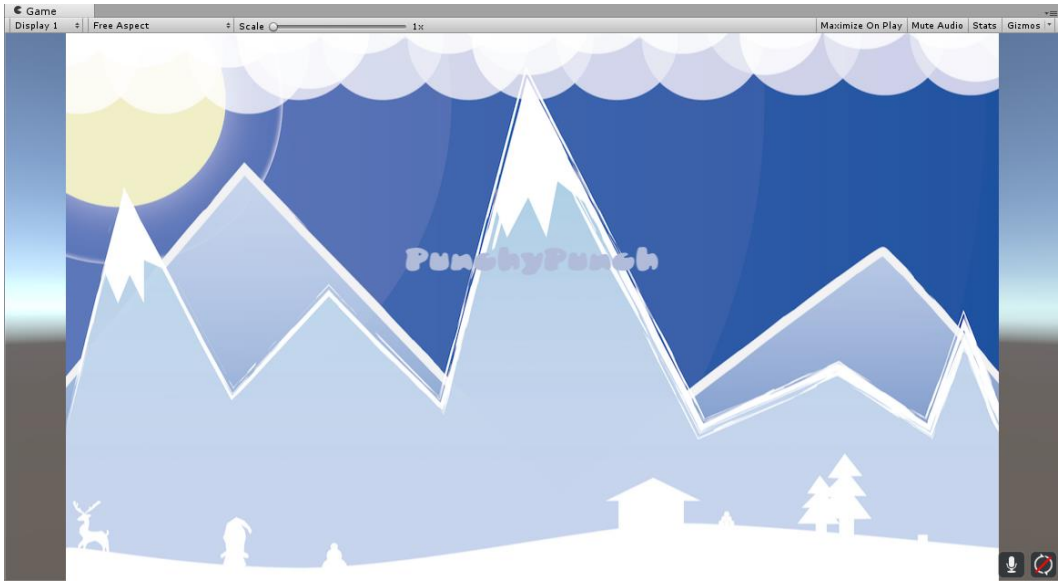

Inspector
mainMenuBtn
Static
Tag
Untagged
Layer
UI
Rect Transform
center
middle
Pos X
Pos Y
Pos Z
-150
-100
0
Width
Height
254
254
R
Anchors
Pivot
X 0.5
Y 0.5
Rotation
X 0
Y 0
Z 0
Scale
X 0.5
Y 0.5
Z 1
Canvas Renderer
Image (Script)
Source Image
homeBtn2
Color
Material
None (Material)
Raycast Target
Image Type
Simple
Preserve Aspect
Set Native Size
Button (Script)
Interactable
Transition
Color Tint
Target Graphic
mainMenuBtn (
Normal Color
Highlighted Color
Pressed Color
Disabled Color
Color Multiplier
1
Fade Duration
0.1
Navigation
Automatic

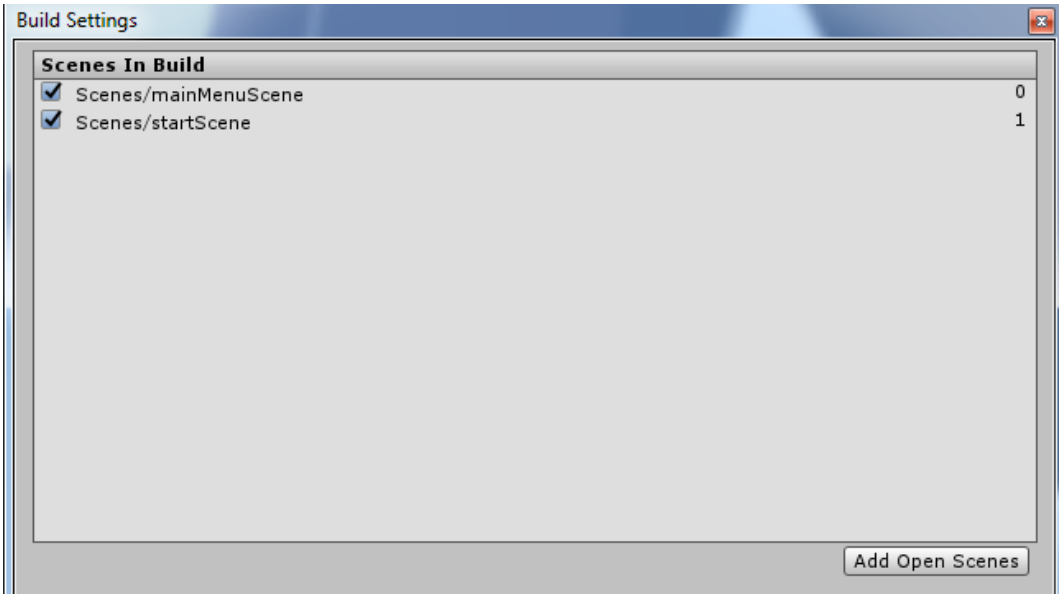

Button (Script)
Interactable
Transition
Color Tint
Target Graphic
mainMenuBtn (
Normal Color
Highlighted Color
Pressed Color
Disabled Color
Color Multiplier
1
Fade Duration
0.1
Navigation
Automatic
Visualize
On Click ()
Runtime C
buttonClick.onButtonClick
buttor
mainMenuScene
Add Component

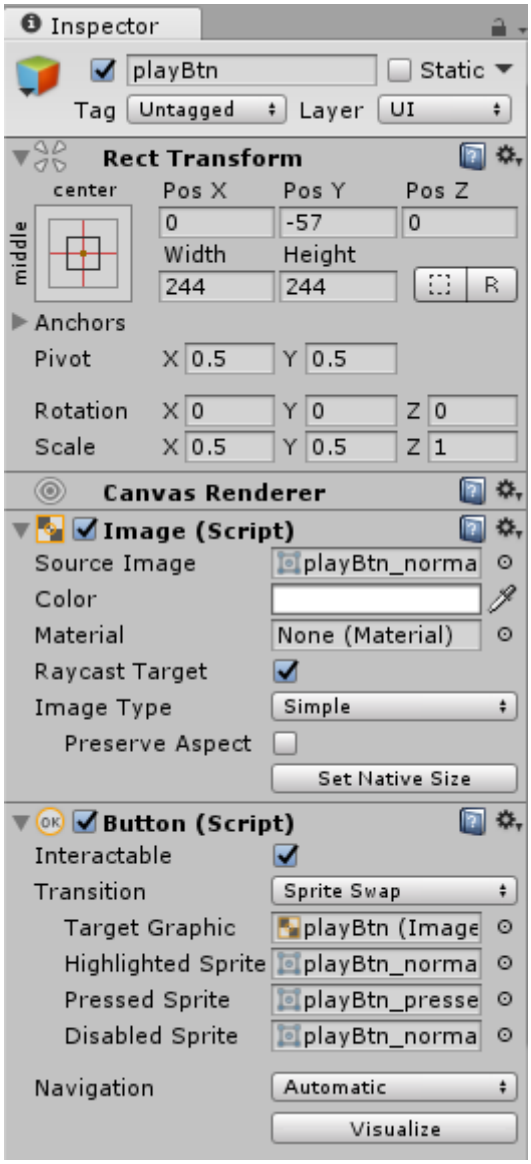

Create
Show in Explorer
Open
Delete
Open Scene Additive
Import New Asset...
Import Package
Export Package...
Folder
C# Script
Javascript
Shader
Testing
Scene
Prefab
Audio Mixer

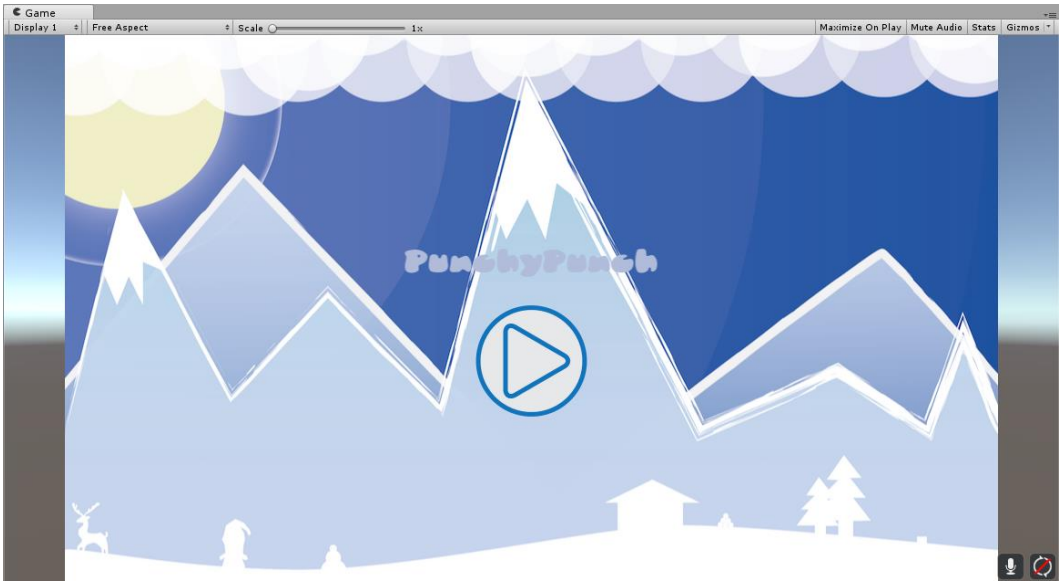

Project
Console
Animator
Create
Favorites
All Materials
All Models
All Prefabs
All Scripts
Assets
3dAssets
animContro
buttons
fonts
images
Materials
repafabs
Scenes
scripts
Assets ▸ Scenes
mainMenuS...
startScene

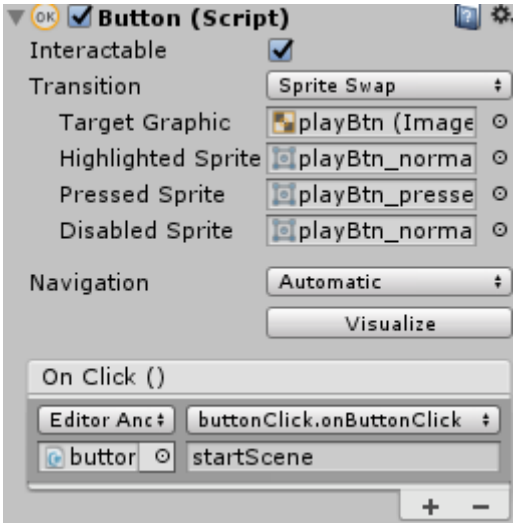

Inspector
titleText
Static
Tag
Untagged
Layer
UI
Rect Transform
center
middle
Pos X
Pos Y
Pos Z
0
51
0
Width
Height
300
300
R
Anchors
Pivot
X 0.5
Y 0.5
Rotation
X 0
Y 0
Z 0
Scale
X 1
Y 1
Z 1
Canvas Renderer
Text (Script)
Text
PunchyPunch
Character
Font
duncecapbb_re
Font Style
Normal
Font Size
36
Line Spacing
1
Rich Text
Paragraph
Alignment
Align By Geometr
Horizontal Overflo
Wrap
Vertical Overflow
Truncate
Best Fit
Color
Material
None (Material)
Raycast Target

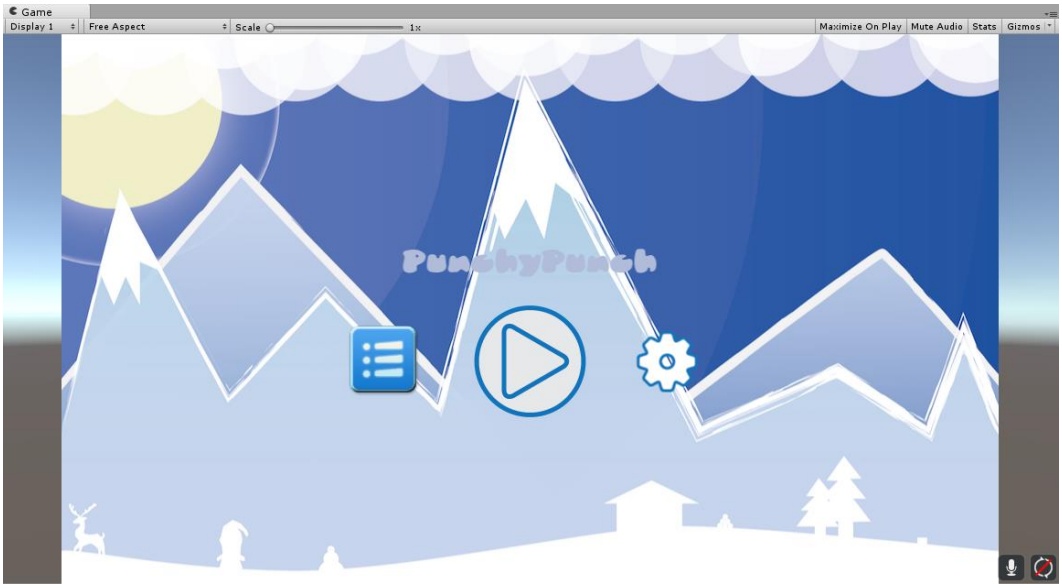

Game
Display 1
Free Aspect
Scale
1x
Maximize On Play
Mute Audio
Stats
Gizmos
PunchyPunch


Build Settings
Scenes In Build
Scenes/mainMenuScene
0
Scenes/startScene
1
Add Open Scenes

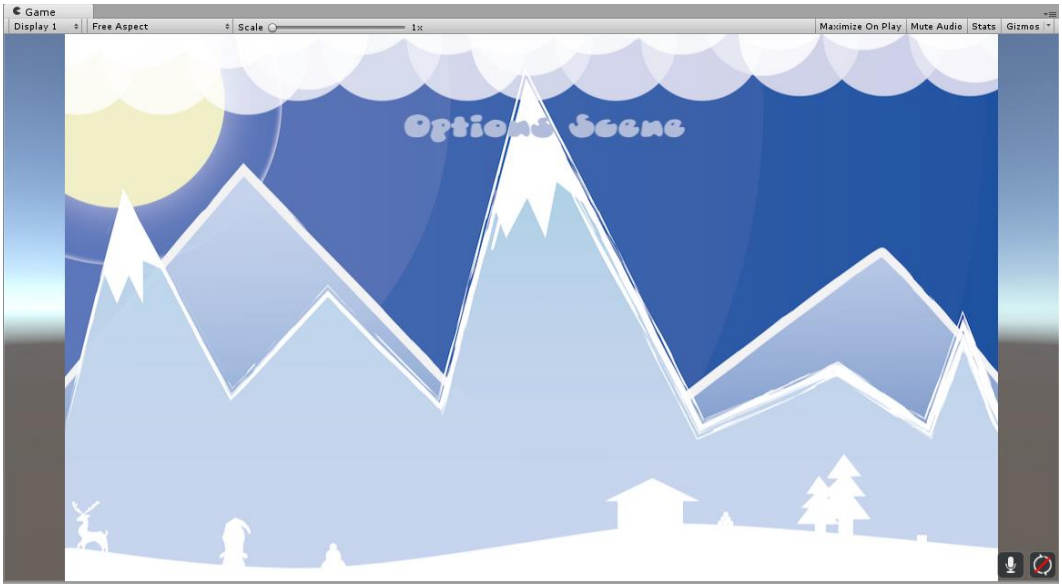

Inspector
playBtn
Static
Tag
Untagged
Layer
UI
Rect Transform
center
middle
Pos X
Pos Y
Pos Z
0
-57
0
Width
Height
244
244
R
Anchors
Pivot
X 0.5
Y 0.5
Rotation
X 0
Y 0
Z 0
Scale
X 0.5
Y 0.5
Z 1
Canvas Renderer
Image (Script)
Source Image
playBtn_norma
Color
Material
None (Material)
Raycast Target
Image Type
Simple
Preserve Aspect
Set Native Size
Button (Script)
Interactable
Transition
Sprite Swap
Target Graphic
playBtn (Image
Highlighted Sprite
playBtn_norma
Pressed Sprite
playBtn_presse
Disabled Sprite
playBtn_norma
Navigation
Automatic
Visualize


Game
Display 1
Free Aspect
Scale
1x
Maximize On Play
Mute Audio
Stats
Gizmos
PunchyPunch


Button (Script)
Interactable
Transition
Sprite Swap
Target Graphic
playBtn (Image
Highlighted Sprite
playBtn_norma
Pressed Sprite
playBtn_presse
Disabled Sprite
playBtn_norma
Navigation
Automatic
Visualize
On Click ()
Editor Anc
buttonClick.onButtonClick
buttor
startScene


Game
Display 1
Free Aspect
Scale
1x
Maximize On Play
Mute Audio
Stats
Gizmos
PunchyPunch

Assets ▸ Scenes
achScene
mainMenuS...
optionsSce...
startScene


Game
Display 1
Free Aspect
Scale
1x
Maximize On Play
Mute Audio
Stats
Gizmos
Options Scene

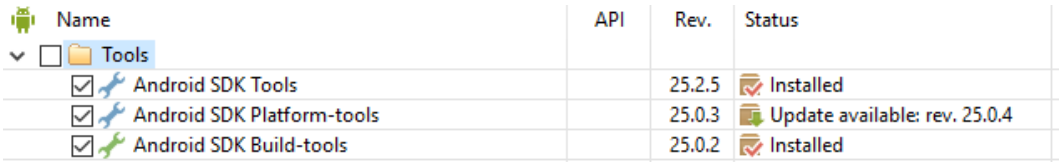
Chapter 7: Gamestats, Social, IAP, and Ad Integration

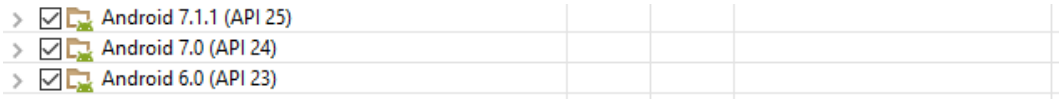
Get just the command line tools

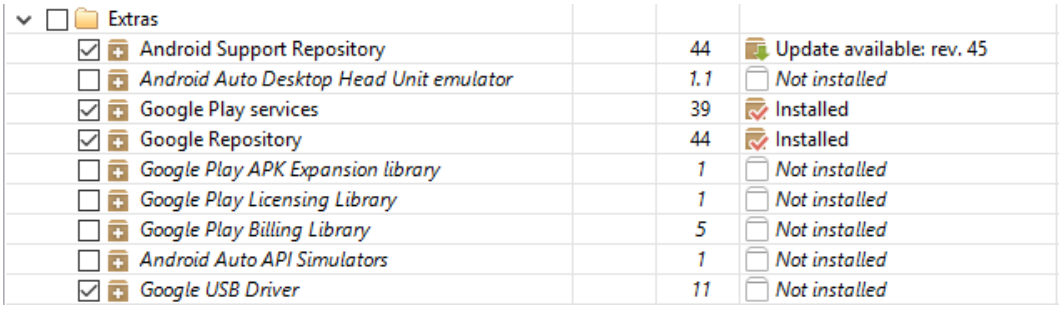
If you do not need Android Studio, you can download the basic Android command line tools below. You can use the included `sdkmanager` to download other SDK packages.

These tools are included in Android Studio.

Platform	SDK tools package	Size	SHA-256 checksum
Windows	tools_r25.2.3-windows.zip	292 MB (306,745,639 bytes)	23d5686ffe489e5a1af95253b153ce9d6f933e5dbabe14c494631234697a0e08
Mac	tools_r25.2.3-macosx.zip	191 MB (200,496,727 bytes)	593544d4ca7ab162705d0032fb0c0c88e75bd0f42412d09a1e8daa3394681dc6
Linux	tools_r25.2.3-linux.zip	264 MB (277,861,433 bytes)	1b35bcb94e9a686dff6460c8bca903aa0281c6696001067f34ec00093145b560







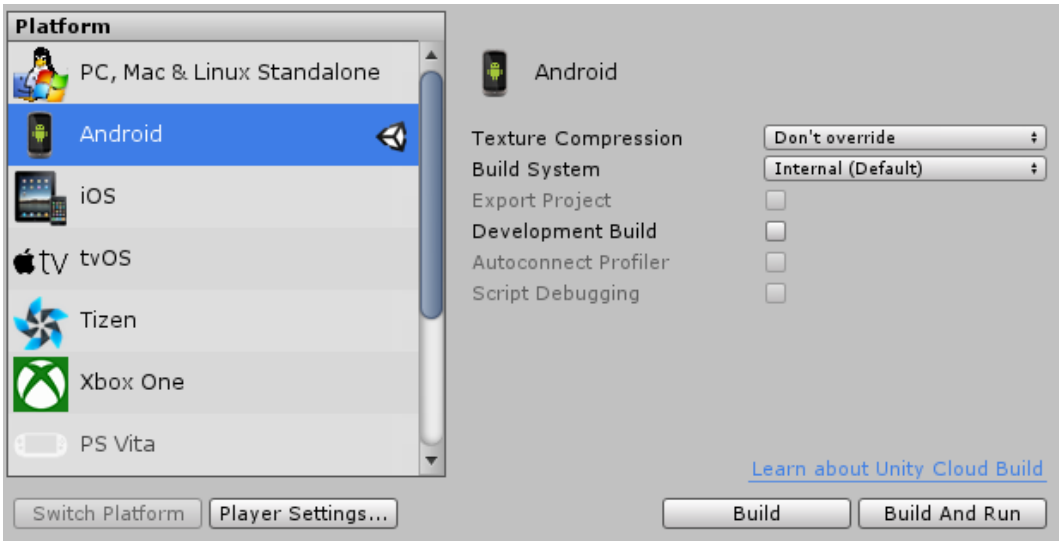
Extras		
Android Support Repository	44	Update available: rev. 45
Android Auto Desktop Head Unit emulator	*1.1*	*Not installed*
Google Play services	39	Installed
Google Repository	44	Installed
Google Play APK Expansion library	*1*	*Not installed*
Google Play Licensing Library	*1*	*Not installed*
Google Play Billing Library	*5*	*Not installed*
Android Auto API Simulators	*1*	*Not installed*
Google USB Driver	*11*	*Not installed*

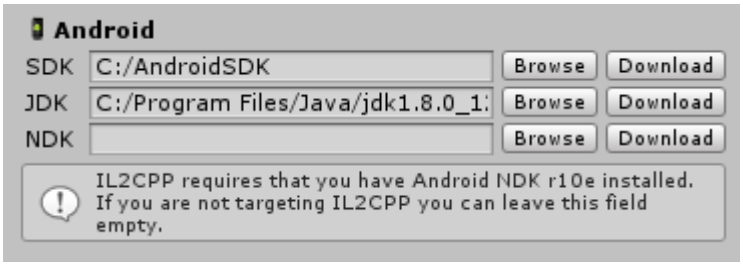
Java SE Development Kit 8u121

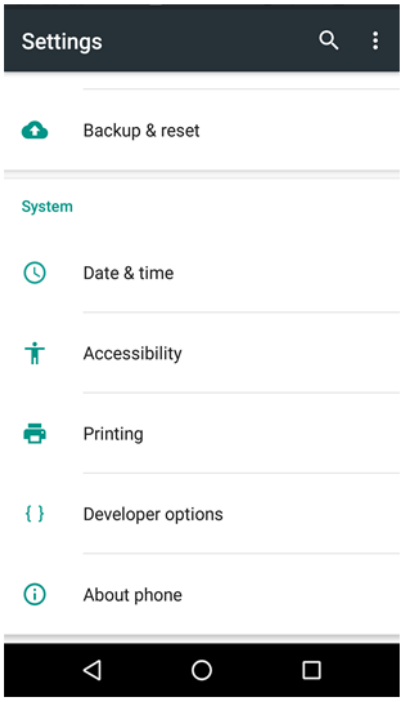
You must accept the Oracle Binary Code License Agreement for Java SE to download this software.

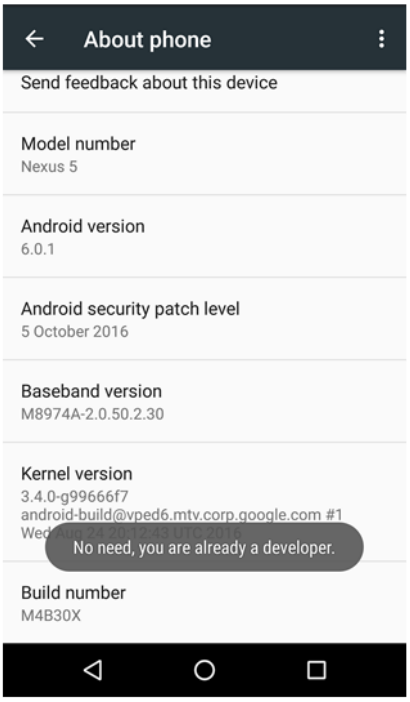
○ Accept License Agreement ◉ Decline License Agreement

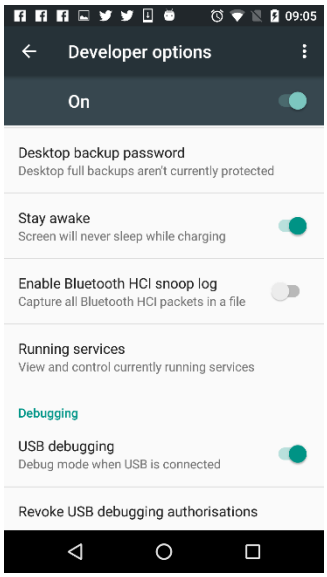
Product / File Description	File Size	Download
Linux ARM 32 Hard Float ABI	77.86 MB	jdk-8u121-linux-arm32-vfp-hflt.tar.gz
Linux ARM 64 Hard Float ABI	74.83 MB	jdk-8u121-linux-arm64-vfp-hflt.tar.gz
Linux x86	162.41 MB	jdk-8u121-linux-i586.rpm
Linux x86	177.13 MB	jdk-8u121-linux-i586.tar.gz
Linux x64	159.96 MB	jdk-8u121-linux-x64.rpm
Linux x64	174.76 MB	jdk-8u121-linux-x64.tar.gz
Mac OS X	223.21 MB	jdk-8u121-macosx-x64.dmg
Solaris SPARC 64-bit	139.64 MB	jdk-8u121-solaris-sparcv9.tar.Z
Solaris SPARC 64-bit	99.07 MB	jdk-8u121-solaris-sparcv9.tar.gz
Solaris x64	140.42 MB	jdk-8u121-solaris-x64.tar.Z
Solaris x64	96.9 MB	jdk-8u121-solaris-x64.tar.gz
Windows x86	189.36 MB	jdk-8u121-windows-i586.exe
Windows x64	195.51 MB	jdk-8u121-windows-x64.exe

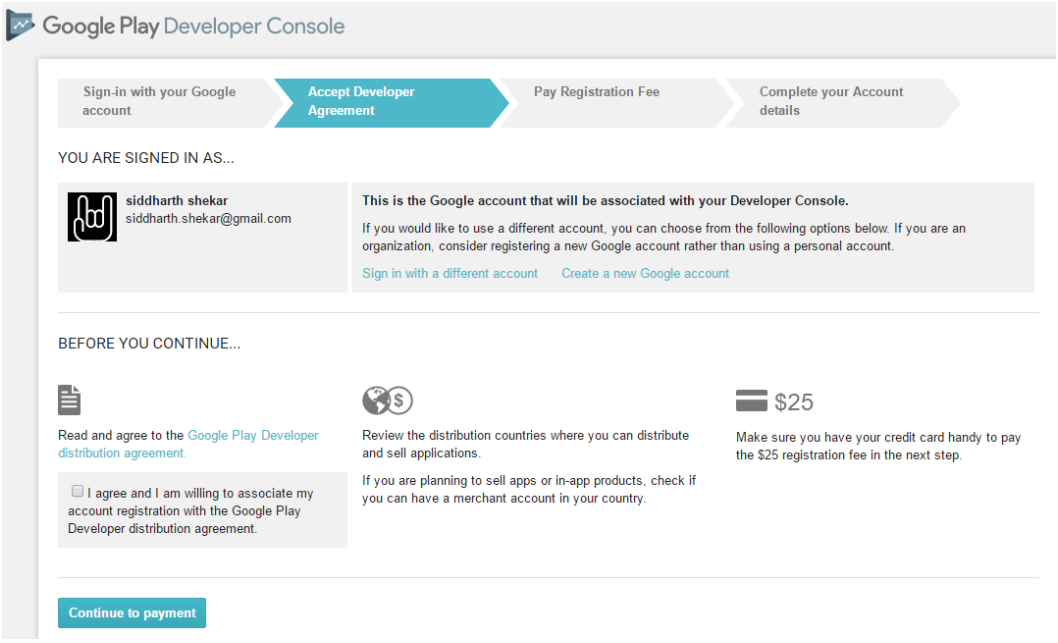

Platform
PC, Mac & Linux Standalone
Android
iOS
tvOS
Tizen
Xbox One
PS Vita
Android
Texture Compression
Don't override
Build System
Internal (Default)
Export Project
Development Build
Autoconnect Profiler
Script Debugging
Learn about Unity Cloud Build
Switch Platform
Player Settings...
Build
Build And Run

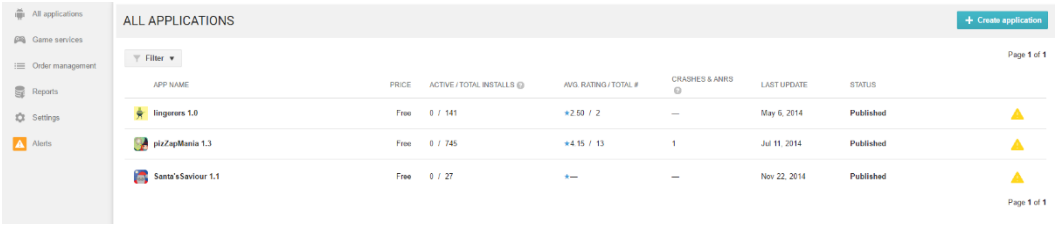

Android
SDK
C:/AndroidSDK
Browse
Download
JDK
C:/Program Files/Java/jdk1.8.0_1
Browse
Download
NDK
Browse
Download
IL2CPP requires that you have Android NDK r10e installed.
If you are not targeting IL2CPP you can leave this field
empty.


Settings
Backup & reset
System
Date & time
Accessibility
Printing
Developer options
About phone


About phone
Send feedback about this device
Model number
Nexus 5
Android version
6.0.1
Android security patch level
5 October 2016
Baseband version
M8974A-2.0.50.2.30
Kernel version
3.4.0-g99666f7
android-build@vped6.mtv.corp.google.com #1
No need, you are already a developer.
Build number
M4B30X


09:05
Developer options
On
Desktop backup password
Desktop full backups aren't currently protected
Stay awake
Screen will never sleep while charging
Enable Bluetooth HCI snoop log
Capture all Bluetooth HCI packets in a file
Running services
View and control currently running services
Debugging
USB debugging
Debug mode when USB is connected
Revoke USB debugging authorisations


Google Play Developer Console
Sign-in with your Google account
Accept Developer Agreement
Pay Registration Fee
Complete your Account details
YOU ARE SIGNED IN AS...
siddharth shekar
siddharth.shekar@gmail.com
This is the Google account that will be associated with your Developer Console.
If you would like to use a different account, you can choose from the following options below. If you are an organization, consider registering a new Google account rather than using a personal account.
Sign in with a different account
Create a new Google account
BEFORE YOU CONTINUE...
Read and agree to the Google Play Developer distribution agreement.
I agree and I am willing to associate my account registration with the Google Play Developer distribution agreement.
Review the distribution countries where you can distribute and sell applications.
If you are planning to sell apps or in-app products, check if you can have a merchant account in your country.
$25
Make sure you have your credit card handy to pay the $25 registration fee in the next step.
Continue to payment


All applications
Game services
Order management
Reports
Settings
Alerts
ALL APPLICATIONS
Create application
Filter
Page 1 of 1
APP NAME
PRICE
ACTIVE / TOTAL INSTALLS
AVG. RATING / TOTAL #
CRASHES & ANRS
LAST UPDATE
STATUS
lingerers 1.0
Free
0 / 141
2.50 / 2
—
May 6, 2014
Published
pizZapMania 1.3
Free
0 / 745
4.15 / 13
1
Jul 11, 2014
Published
Santa'sSaviour 1.1
Free
0 / 27
—
—
Nov 22, 2014
Published
Page 1 of 1

CREATE APPLICATION

Default language *

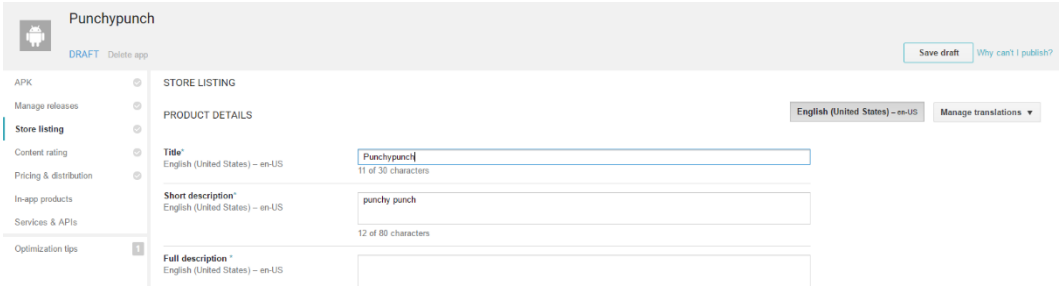
English (United States) – en-US ▼

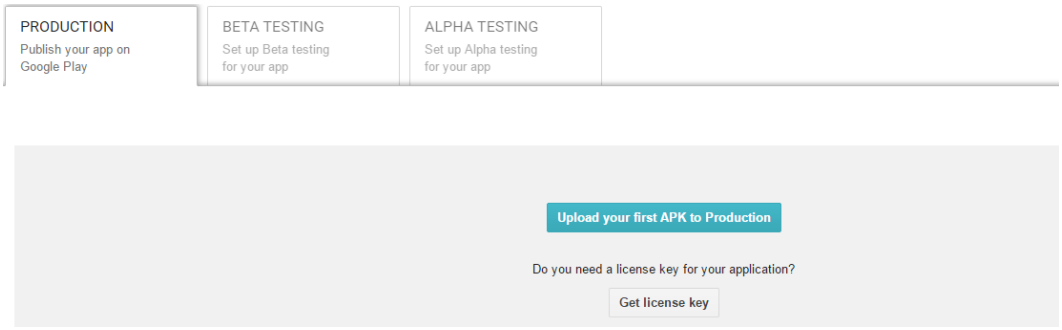
Title *

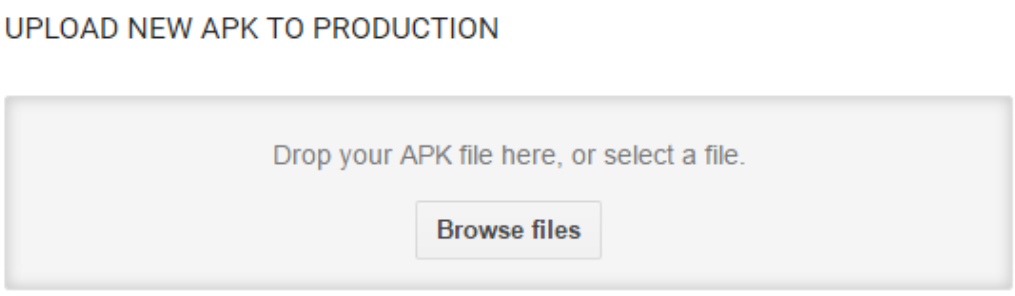
Punchypunch

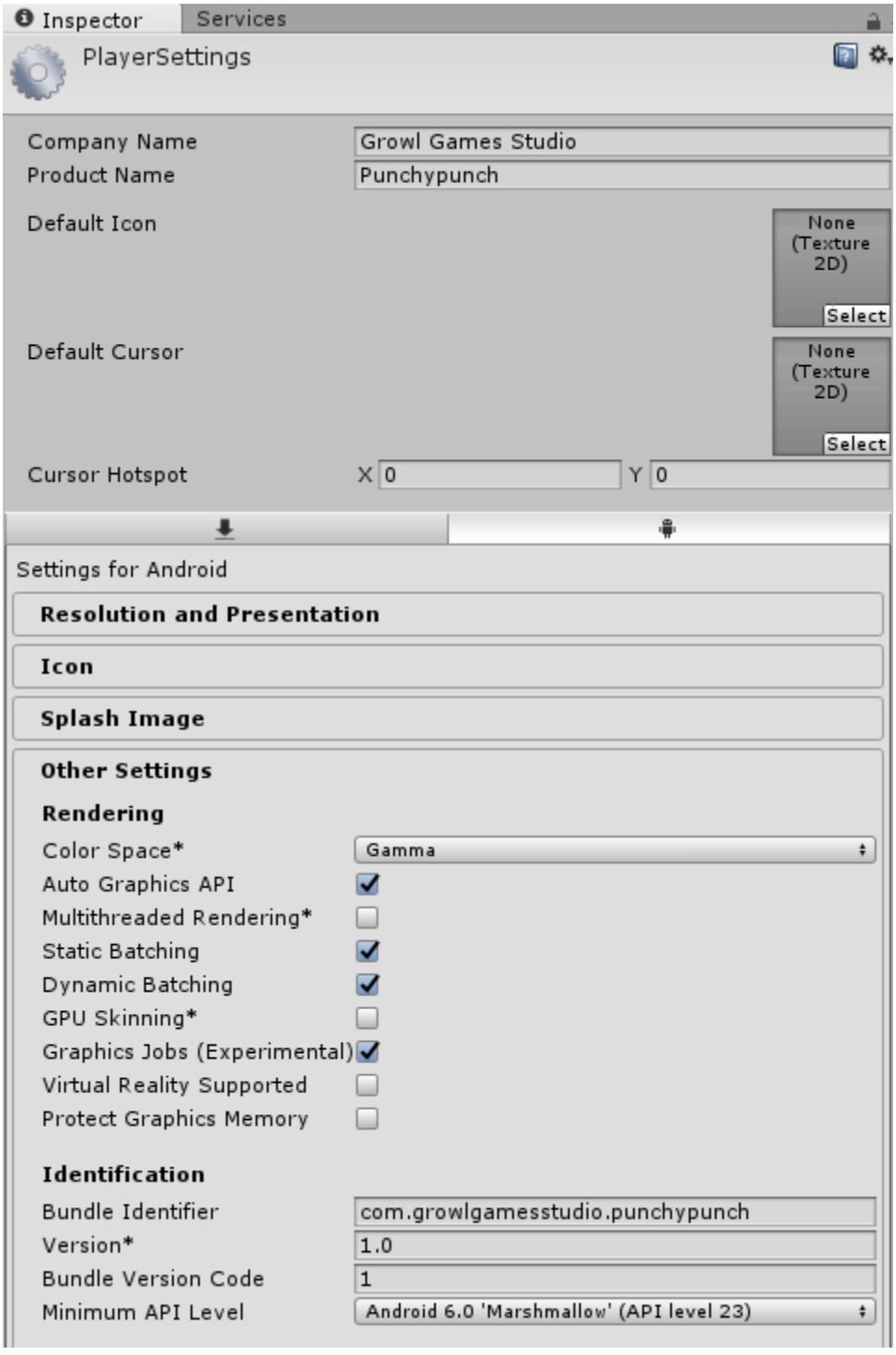
11 of 30 characters

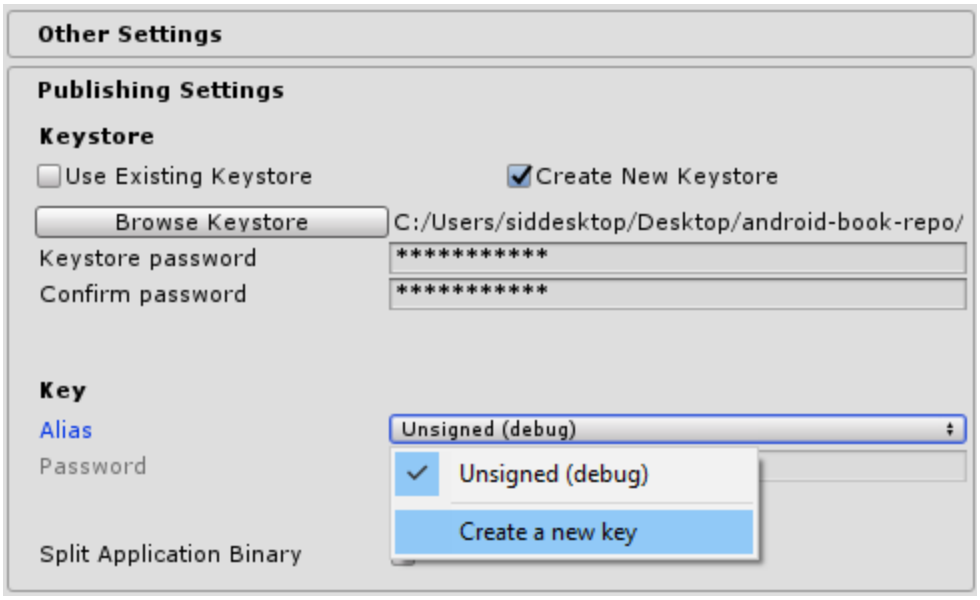
Create Cancel

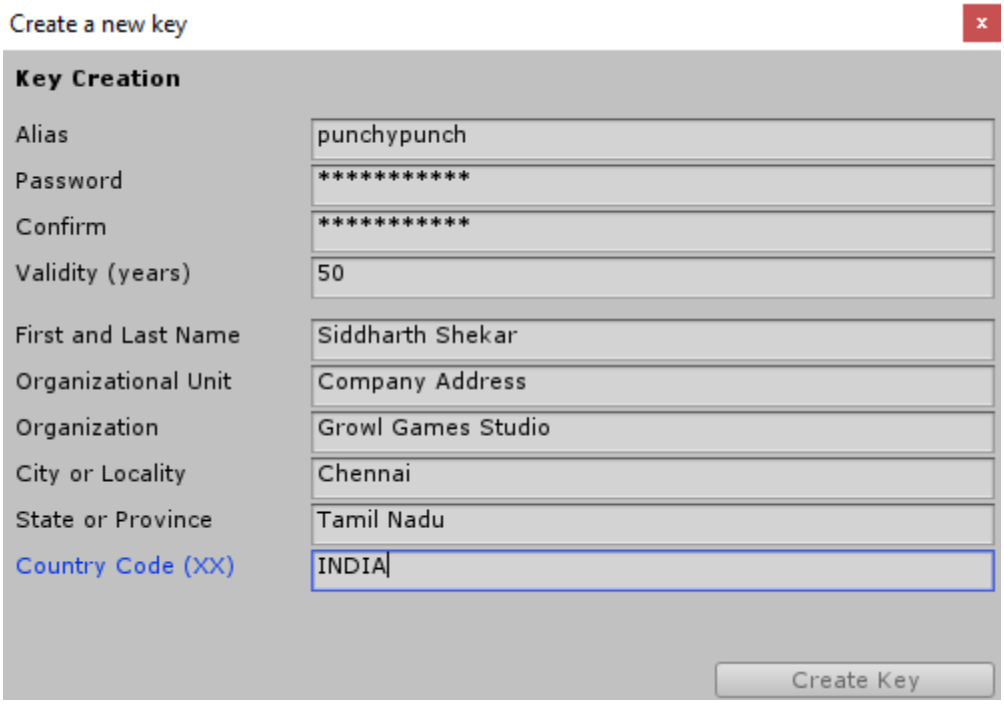


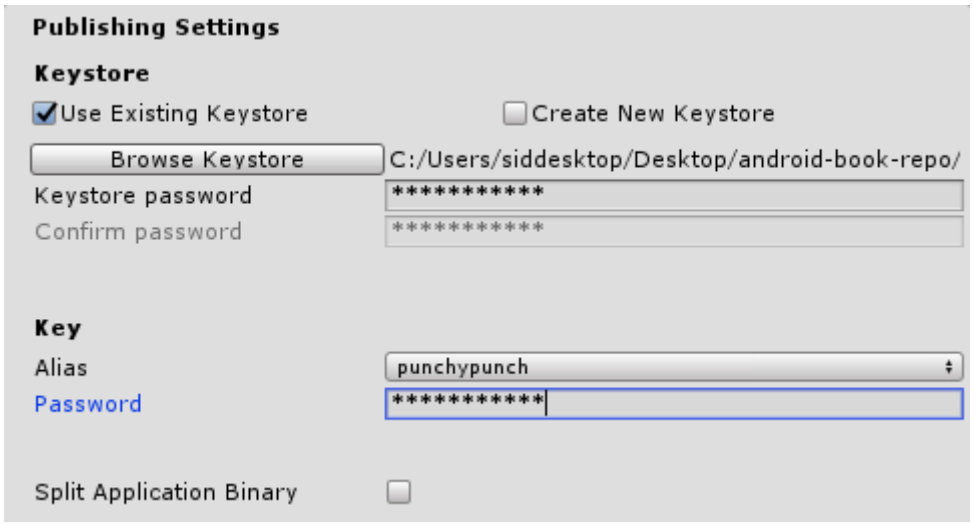

PRODUCTION
Publish your app on Google Play
BETA TESTING
Set up Beta testing for your app
ALPHA TESTING
Set up Alpha testing for your app
Upload your first APK to Production
Do you need a license key for your application?
Get license key

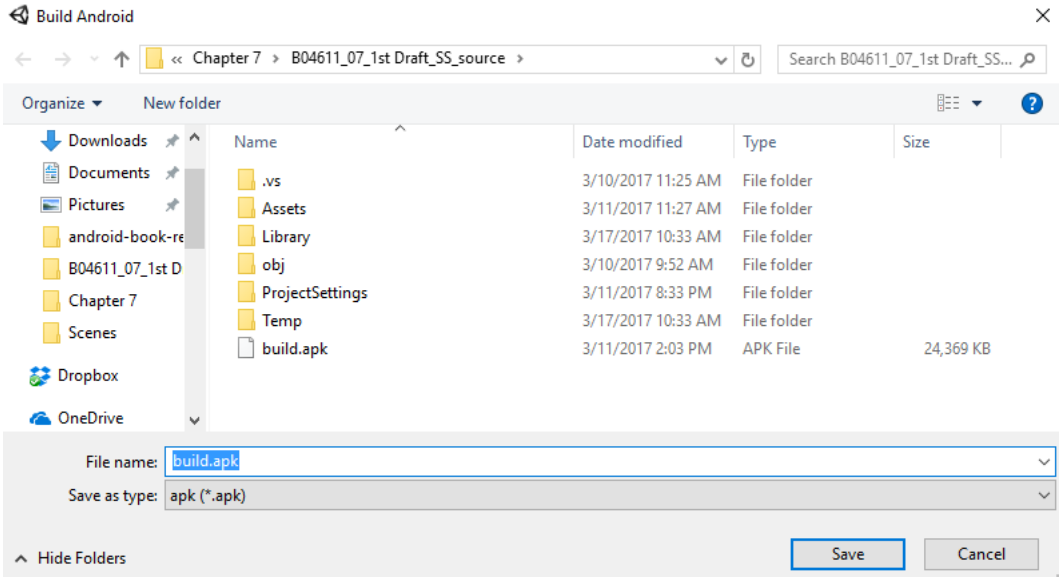

UPLOAD NEW APK TO PRODUCTION
Drop your APK file here, or select a file.
Browse files
Cancel

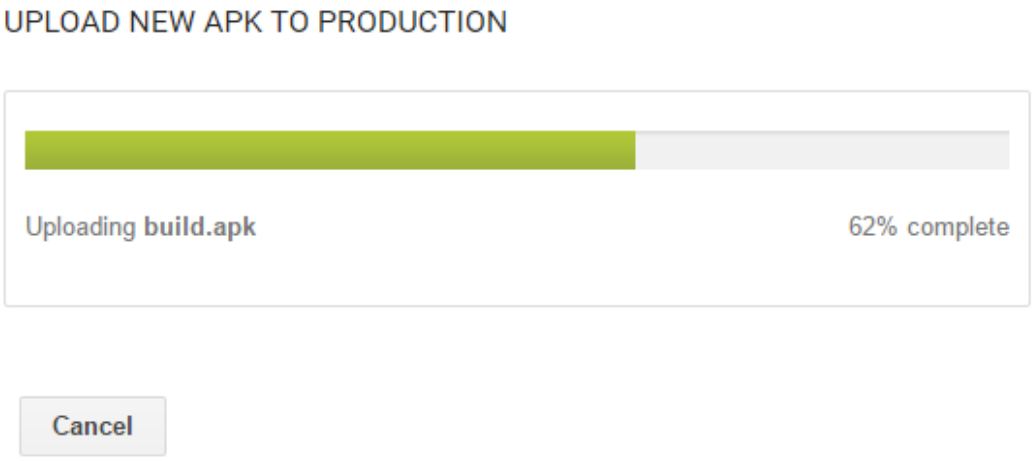

Inspector
Services
PlayerSettings
Company Name
Growl Games Studio
Product Name
Punchypunch
Default Icon
None (Texture 2D)
Select
Default Cursor
None (Texture 2D)
Select
Cursor Hotspot
X 0
Y 0
Settings for Android
Resolution and Presentation
Icon
Splash Image
Other Settings
Rendering
Color Space*
Gamma
Auto Graphics API
Multithreaded Rendering*
Static Batching
Dynamic Batching
GPU Skinning*
Graphics Jobs (Experimental)
Virtual Reality Supported
Protect Graphics Memory
Identification
Bundle Identifier
com.growlgamesstudio.punchypunch
Version*
1.0
Bundle Version Code
1
Minimum API Level
Android 6.0 'Marshmallow' (API level 23)

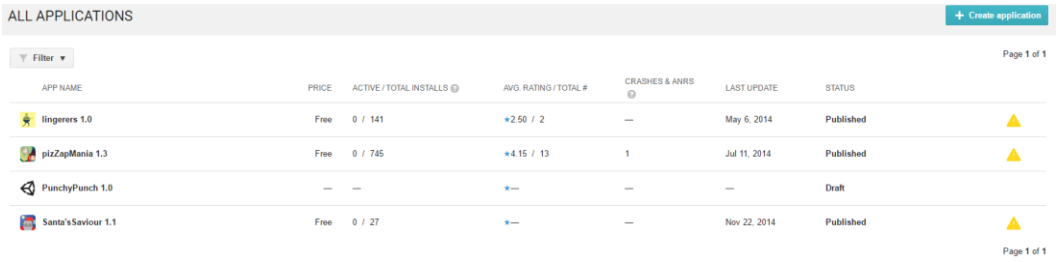

Other Settings
Publishing Settings
Keystore
Use Existing Keystore
Create New Keystore
Browse Keystore
C:/Users/siddesktop/Desktop/android-book-repo/
Keystore password
****
Confirm password
****
Key
Alias
Unsigned (debug)
Password
Unsigned (debug)
Create a new key
Split Application Binary

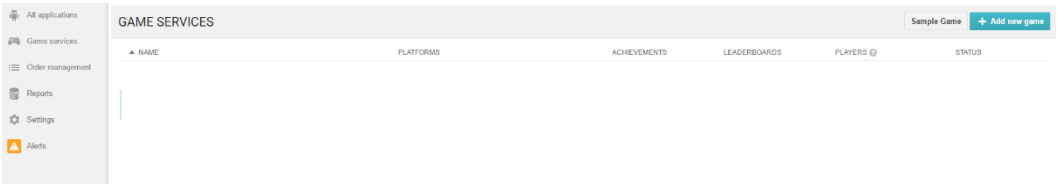

Create a new key
Key Creation
Alias
punchypunch
Password
****
Confirm
****
Validity (years)
50
First and Last Name
Siddharth Shekar
Organizational Unit
Company Address
Organization
Growl Games Studio
City or Locality
Chennai
State or Province
Tamil Nadu
Country Code (XX)
INDIA
Create Key


Publishing Settings
Keystore
Use Existing Keystore
Create New Keystore
Browse Keystore
C:/Users/siddesktop/Desktop/android-book-repo/
Keystore password
****
Confirm password
****
Key
Alias
punchypunch
Password
****
Split Application Binary


Build Android
Chapter 7 › B04611_07_1st Draft_SS_source ›
Search B04611_07_1st Draft_SS...
Organize
New folder
Downloads
Documents
Pictures
android-book-re
B04611_07_1st D
Chapter 7
Scenes
Dropbox
OneDrive
Name
Date modified
Type
Size
.vs 3/10/2017 11:25 AM File folder
Assets 3/11/2017 11:27 AM File folder
Library 3/17/2017 10:33 AM File folder
obj 3/10/2017 9:52 AM File folder
ProjectSettings 3/11/2017 8:33 PM File folder
Temp 3/17/2017 10:33 AM File folder
build.apk 3/11/2017 2:03 PM APK File 24,369 KB
File name: build.apk
Save as type: apk (*.apk)
Hide Folders
Save
Cancel


UPLOAD NEW APK TO PRODUCTION
Uploading build.apk
62% complete
Cancel


ALL APPLICATIONS
Create application
Filter
Page 1 of 1
APP NAME
PRICE
ACTIVE / TOTAL INSTALLS
AVG. RATING / TOTAL #
CRASHES & ANRS
LAST UPDATE
STATUS
lingerers 1.0
Free
0 / 141
2.50 / 2
—
May 6, 2014
Published
pizZapMania 1.3
Free
0 / 745
4.15 / 13
1
Jul 11, 2014
Published
PunchyPunch 1.0
—
—
—
—
—
Draft
Santa'sSaviour 1.1
Free
0 / 27
—
—
Nov 22, 2014
Published
Page 1 of 1


All applications
Game services
Order management
Reports
Settings
Alerts
GAME SERVICES
Sample Game
Add new game
NAME
PLATFORMS
ACHIEVEMENTS
LEADERBOARDS
PLAYERS
STATUS

SET UP GOOGLE PLAY GAME SERVICES FOR AN APP

Do you already use Google APIs in your app?

I don't use any Google APIs in my game yet | I already use Google APIs in my game

What is the name of your game?

Punchypunch 11 of 30 characters

This is the name that will be displayed to users in Google Play game services.

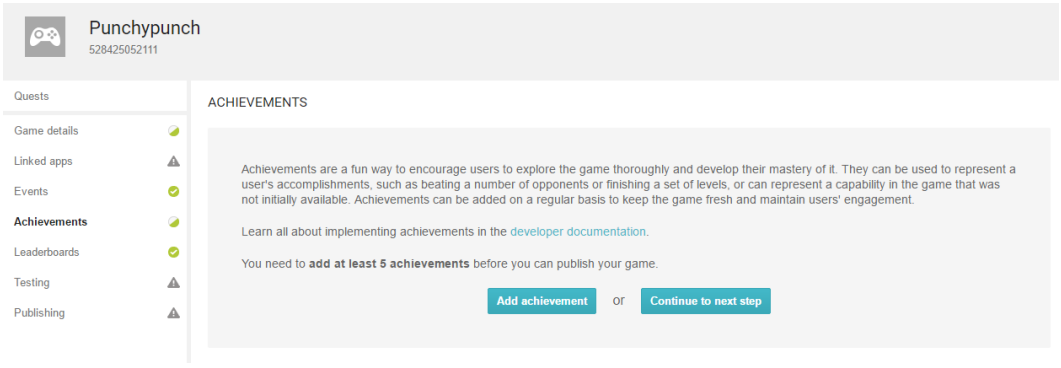
What kind of game is it?

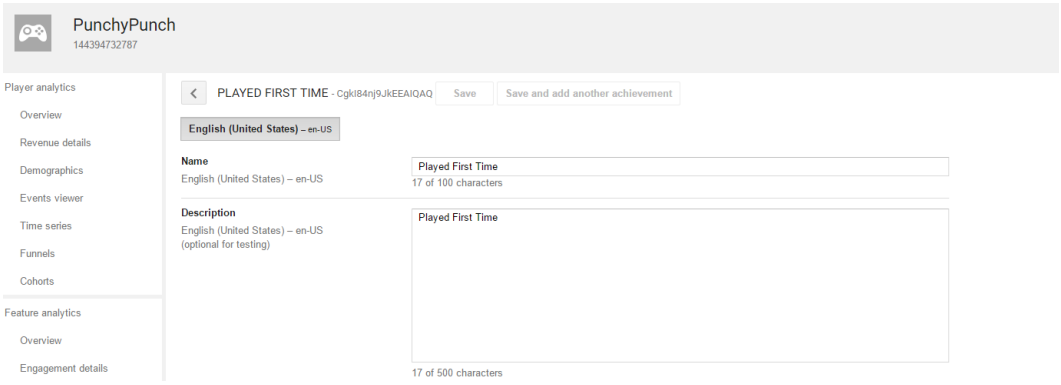
Action ▼

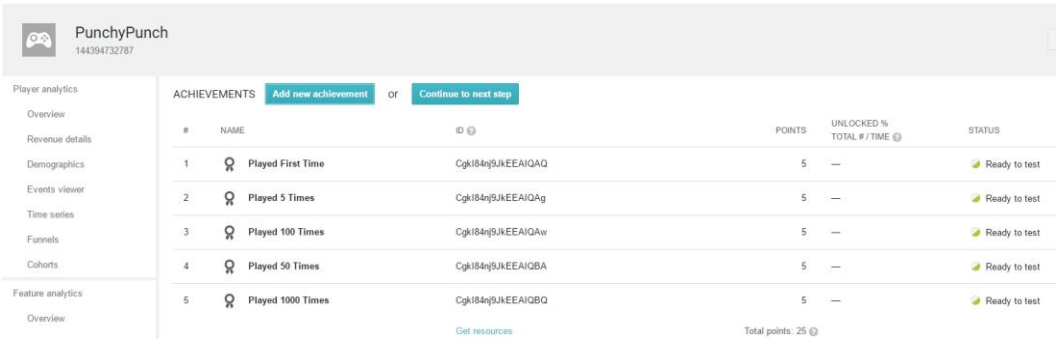
The category helps users browse interesting games.

Google Play game services use the following APIs: Google+ API, Google Play Game Services and Google Play Game Management
We will automatically create a project for your game on the Google Developers Console and enable the necessary APIs for you.

Continue Cancel




PunchyPunch
144394732787
Player analytics
Overview
Revenue details
Demographics
Events viewer
Time series
Funnels
Cohorts
Feature analytics
Overview
Engagement details
PLAYED FIRST TIME - CgkI84nj9JkEEAIQAQ
Save
Save and add another achievement
English (United States) – en-US
Name
English (United States) – en-US
Played First Time
17 of 100 characters
Description
English (United States) – en-US
(optional for testing)
Played First Time
17 of 500 characters


PunchyPunch
144394732787
Player analytics
Overview
Revenue details
Demographics
Events viewer
Time series
Funnels
Cohorts
Feature analytics
Overview
ACHIEVEMENTS
Add new achievement
or
Continue to next step
NAME ID POINTS UNLOCKED % TOTAL # / TIME STATUS
1 Played First Time CgkI84nj9JkEEAIQAQ 5 — Ready to test
2 Played 5 Times CgkI84nj9JkEEAIQAg 5 — Ready to test
3 Played 100 Times CgkI84nj9JkEEAIQAw 5 — Ready to test
4 Played 50 Times CgkI84nj9JkEEAIQBA 5 — Ready to test
5 Played 1000 Times CgkI84nj9JkEEAIQBQ 5 — Ready to test
Get resources
Total points: 25

EXPORT RESOURCES

Android | Objective-C | Javascript | Text

```
<?xml version="1.0" encoding="utf-8"?>
<!--
Google Play game services IDs.
Save this file as res/values/games-ids.xml in your project.
-->
<resources>
  <string name="app_id">144394732787</string>
  <string name="package_name">com.growlgamesstudio.punchypunch</string>
  <string name="achievement_played_first_time">CgkI84nj9JkEEAIQAQ</string>
  <string name="achievement_played_5_times">CgkI84nj9JkEEAIQAg</string>
  <string name="achievement_played_100_times">CgkI84nj9JkEEAIQAw</string>
  <string name="achievement_played_50_times">CgkI84nj9JkEEAIQBA</string>
  <string name="achievement_played_1000_times">CgkI84nj9JkEEAIQBQ</string>
</resources>
```

Done

TESTING GOOGLE PLAY GAME SERVICES Continue to next step

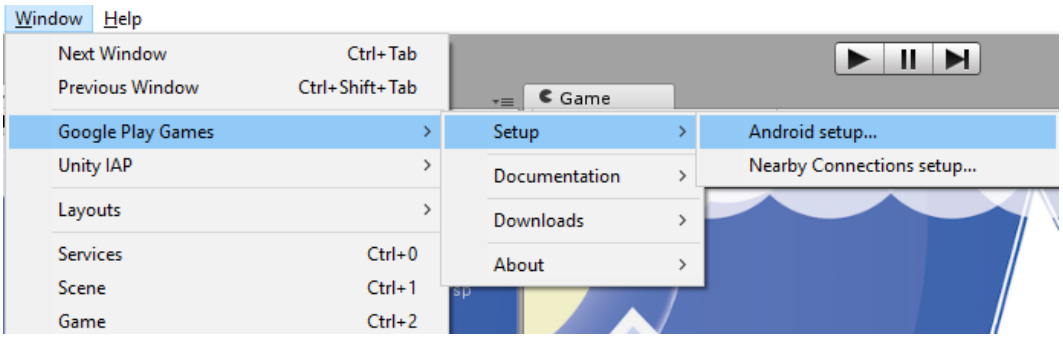
The Google Play game services settings are ready to test.

TESTING ACCESS

The following users can test your saved drafts for Google Play game services before they are published.

Add testers

siddharth.shekar@gmail.com ×



Google Play Games - Android Configuration

To configure Google Play Games in this project,
go to the Play Game console, then enter the information below and click on the Setup button.

Open Play Games Console

Constants class name

Enter the fully qualified name of the class to create containing the constants

Directory to save constan: Assets

Constants class name: PunchyPunchAchievements

Resources Definition

Paste in the Android Resources from the Play Console

```
<?xml version="1.0" encoding="utf-8"?>
<!--
Google Play game services IDs.
Save this file as res/values/games-ids.xml in your project.
-->
<resources>
  <string name="app_id">144394732787</string>
  <string name="package_name">com.growlgamesstudio.punchypunch</string>
  <string name="achievement_played_first_time">CgkI84nj9JkEEAIQAQ</string>
  <string name="achievement_played_5_times">CgkI84nj9JkEEAIQAg</string>
  <string name="achievement_played_100_times">CgkI84nj9JkEEAIQAw</string
  <string name="achievement_played_50_times">CgkI84nj9JkEEAIQBA</string>
  <string name="achievement_played_1000_times">CgkI84nj9JkEEAIQBQ</strin
</resources>
```

Enable Google Plus API Access

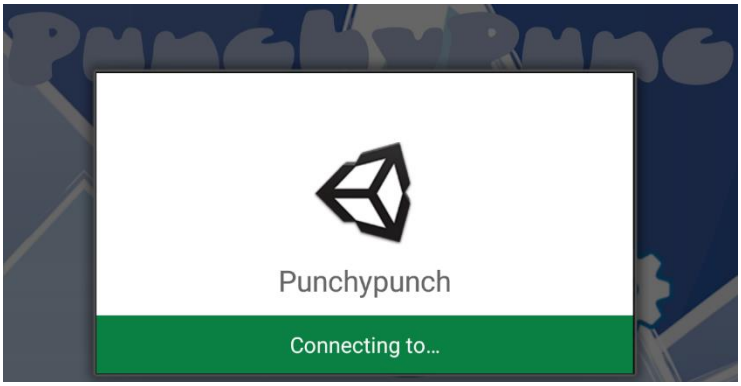
(Not recommended) Enable access to the Google + API. This is only needed if you are calling Google+ APIs directly.

Web App Client ID (Optional)

The web app client ID is needed to access the user's ID token and call other APIs onbehalf of the user. It is not required for Game Services. Enter your oauth2 client ID below.
To obtain this ID, generate a web linked app in Developer Console. Example:
123456789012-abcdefghijklm.apps.googleusercontent.com

Client ID

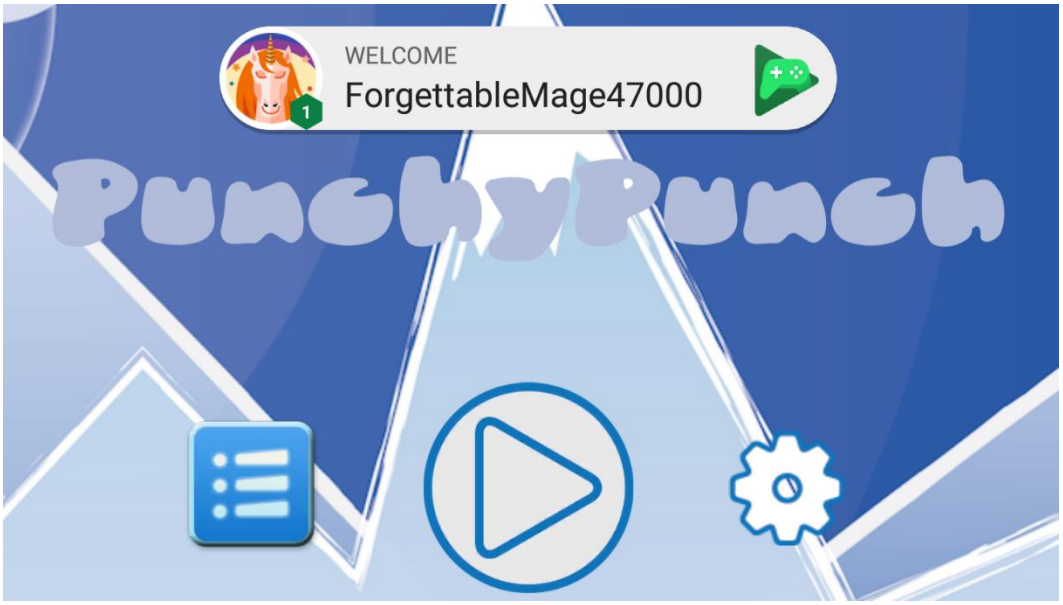
Setup | Cancel

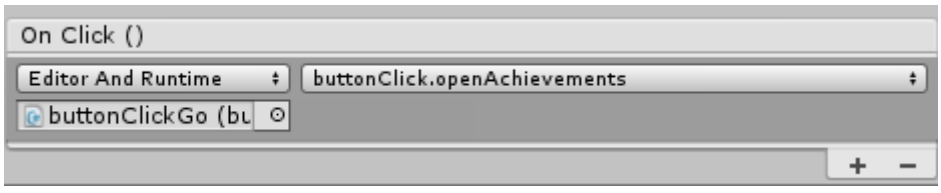


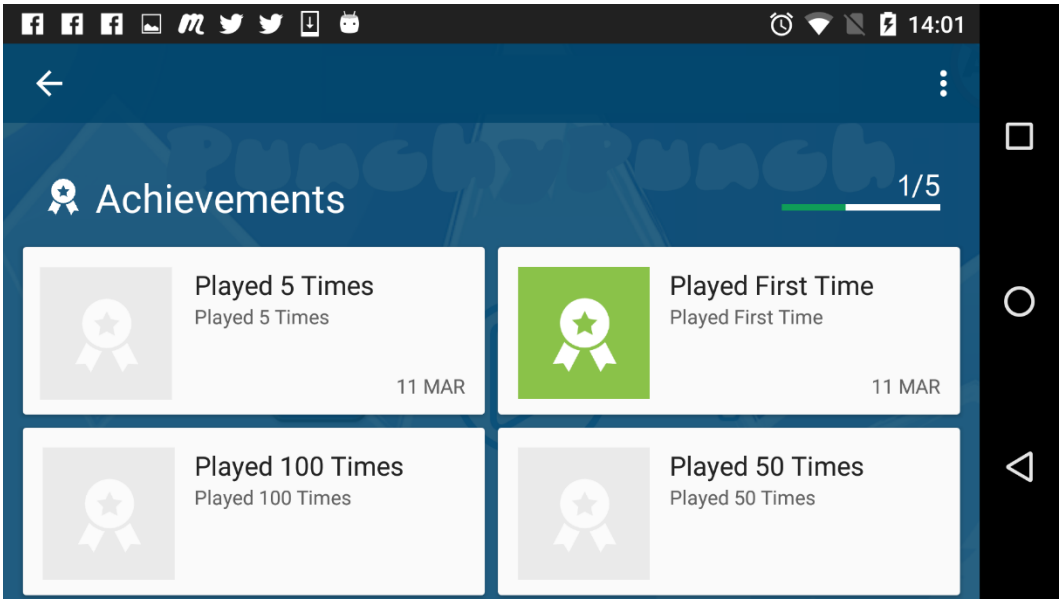
Choose account for Google Play Games

siddharth shekar
siddharth.shekar@gmail.com

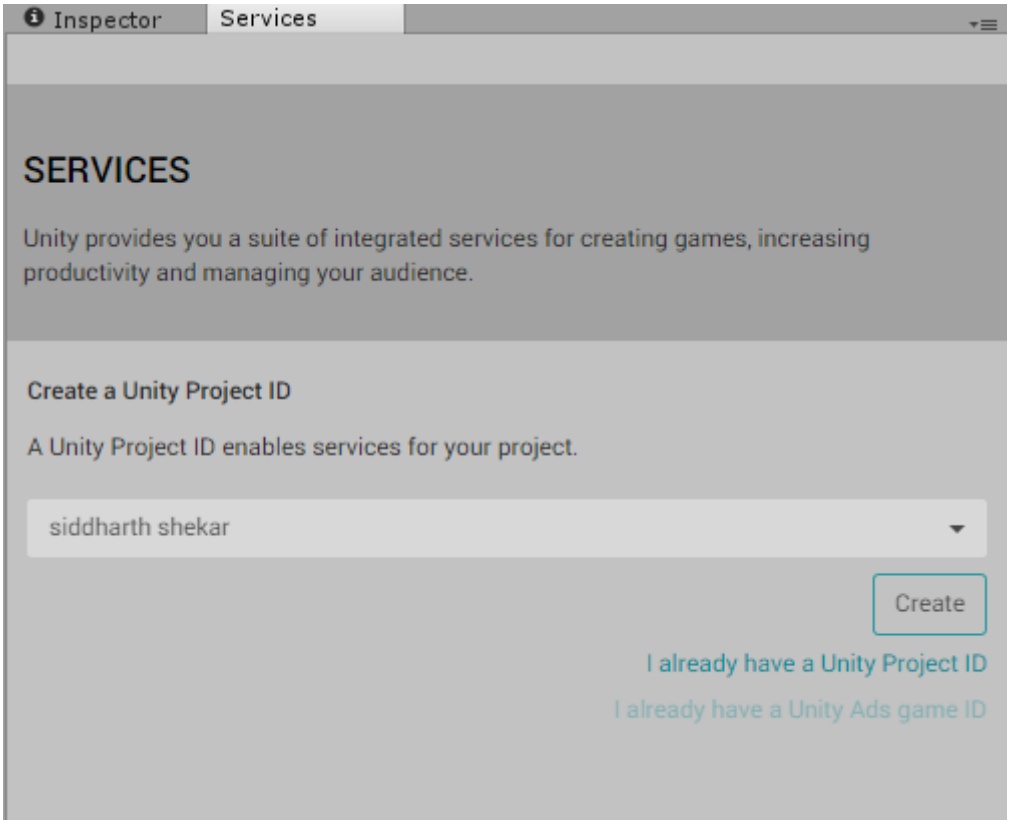
Add account

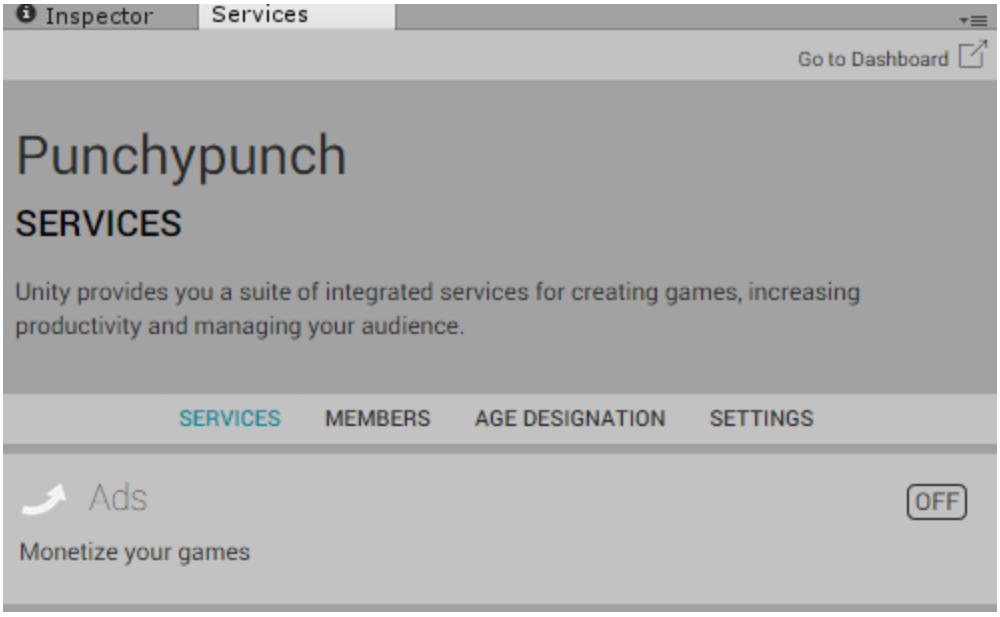


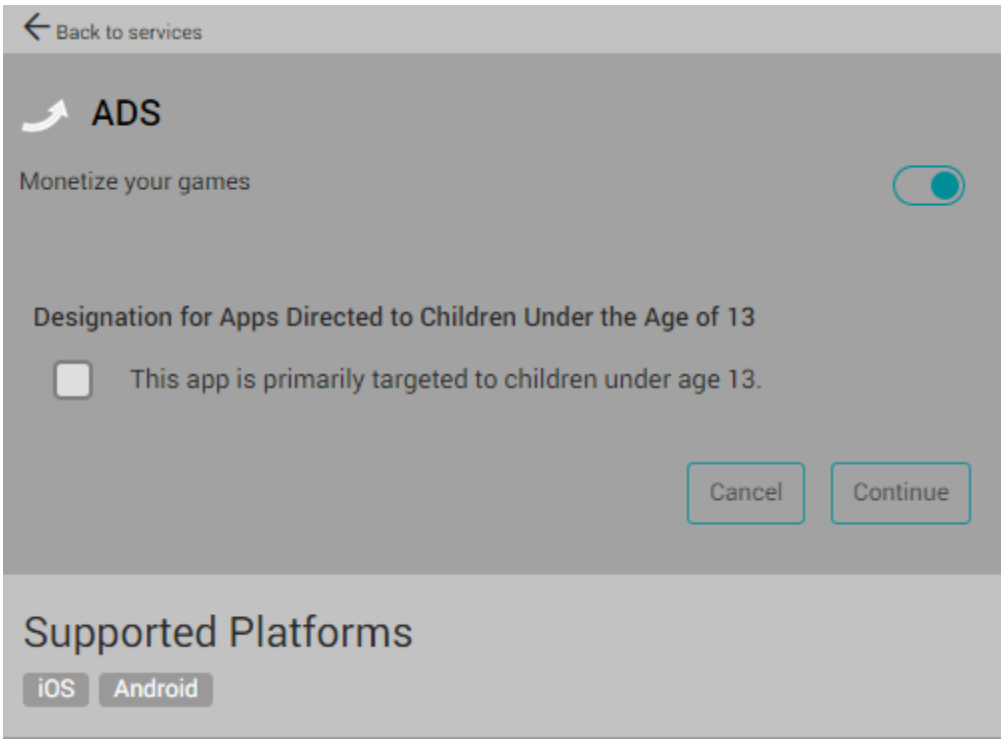


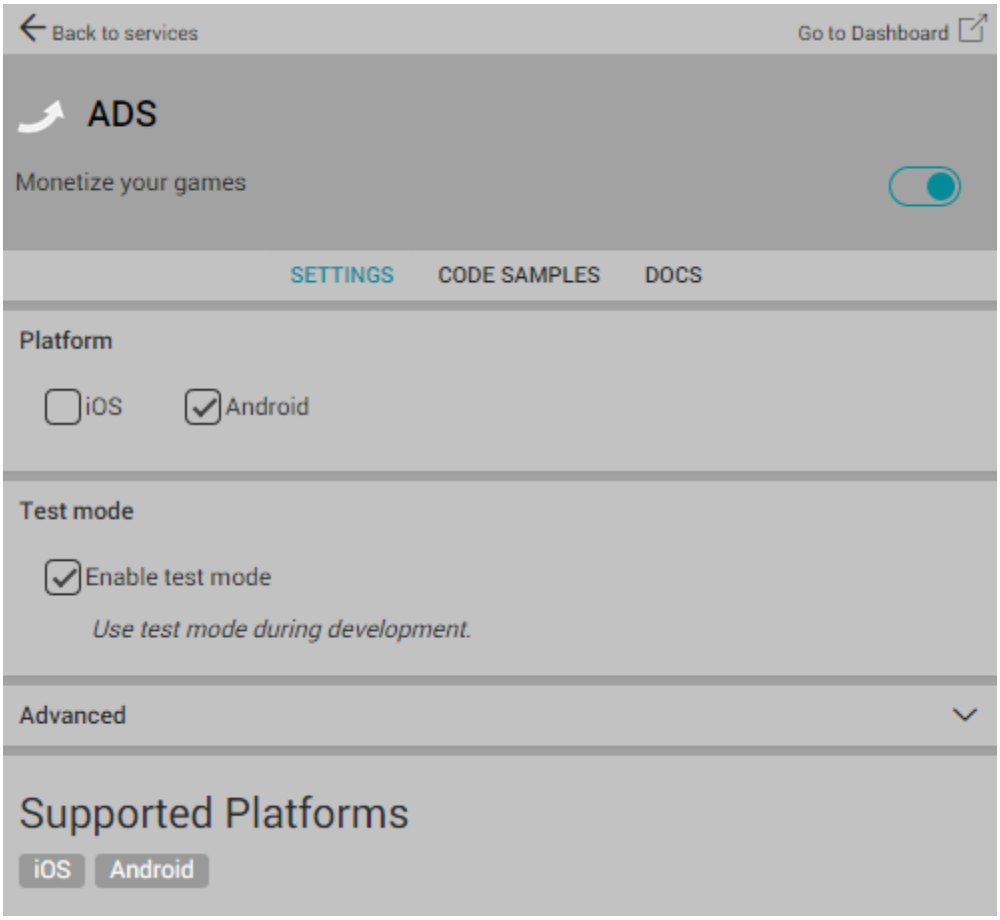

14:01
Achievements
1/5
Played 5 Times
Played 5 Times
11 MAR
Played First Time
Played First Time
11 MAR
Played 100 Times
Played 100 Times
Played 50 Times
Played 50 Times

Options Scene


Inspector
Services
SERVICES
Unity provides you a suite of integrated services for creating games, increasing productivity and managing your audience.
Create a Unity Project ID
A Unity Project ID enables services for your project.
siddharth shekar
Create
I already have a Unity Project ID
I already have a Unity Ads game ID

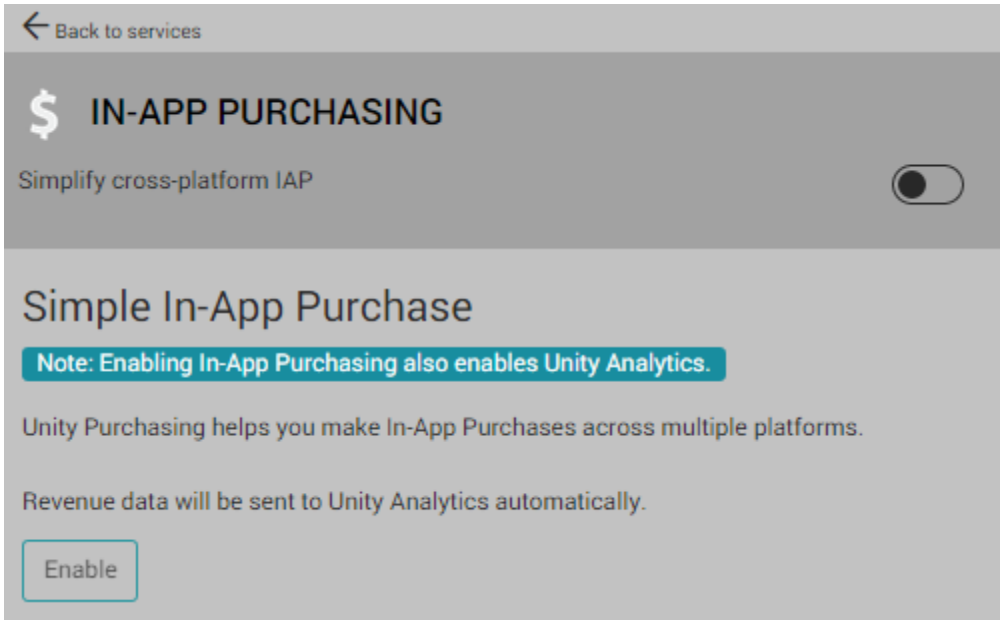

Inspector
Services
Go to Dashboard
Punchypunch
SERVICES
Unity provides you a suite of integrated services for creating games, increasing productivity and managing your audience.
SERVICES
MEMBERS
AGE DESIGNATION
SETTINGS
Ads
OFF
Monetize your games

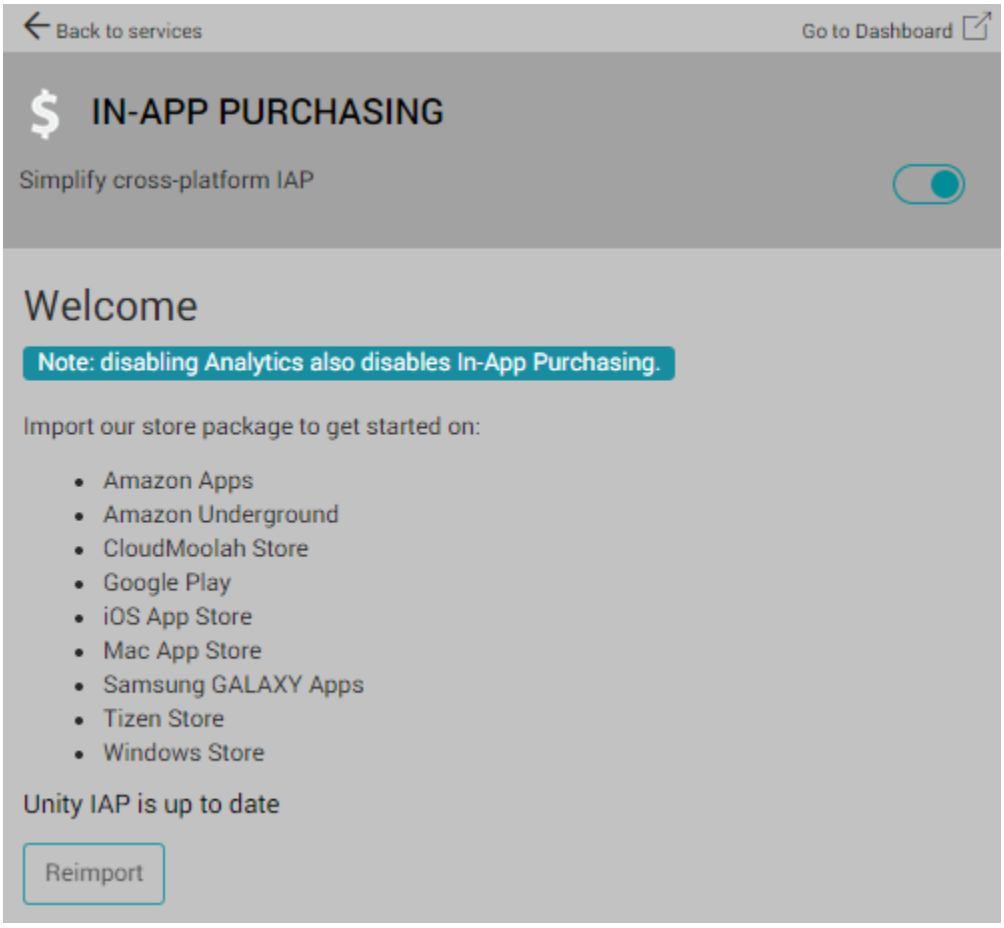

Back to services
ADS
Monetize your games
Designation for Apps Directed to Children Under the Age of 13
This app is primarily targeted to children under age 13.
Cancel
Continue
Supported Platforms
iOS
Android


Back to services
Go to Dashboard
ADS
Monetize your games
SETTINGS
CODE SAMPLES
DOCS
Platform
iOS
Android
Test mode
Enable test mode
Use test mode during development.
Advanced
Supported Platforms
iOS
Android

4
unity ADS

In-App Purchasing
OFF
Simplify cross-platform IAP


Back to services
IN-APP PURCHASING
Simplify cross-platform IAP
Simple In-App Purchase
Note: Enabling In-App Purchasing also enables Unity Analytics.
Unity Purchasing helps you make In-App Purchases across multiple platforms.
Revenue data will be sent to Unity Analytics automatically.
Enable

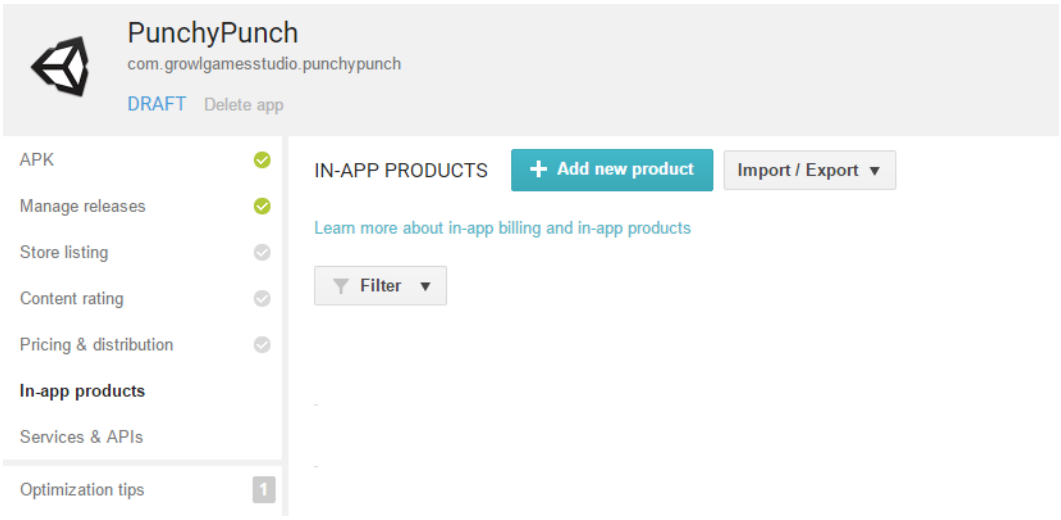

Back to services
Go to Dashboard
IN-APP PURCHASING
Simplify cross-platform IAP
Welcome
Note: disabling Analytics also disables In-App Purchasing.
Import our store package to get started on:
Amazon Apps
Amazon Underground
CloudMoolah Store
Google Play
iOS App Store
Mac App Store
Samsung GALAXY Apps
Tizen Store
Windows Store
Unity IAP is up to date
Reimport

- InitializePurchasing: Initializes the IAP builder, adds products that are available for sale and supplies a listener to handle purchasing events.
- BuyProductID: A private function which allows us to buy a product we've added using it's product ID string.
- BuyConsumable, BuyNonConsumable, BuySubscription: Public functions which allow us to buy products of different types by passing their respective strings to BuyProductID.
- RestorePurchases: On iOS we can call RestorePurchases to restore products previously purchased.
- OnInitialize: Called to check if the app can connect to Unity IAP or not. OnInitialize will keep trying in the background and will only fail if there is a configuration problem that cannot be recovered from.
- OnInitializeFailed: Called when IAP have failed to initialize and logs a message to the console.
- ProcessPurchase: Checks to see if a product purchase was successful and logs the result to the console.
- OnPurchaseFailed: Logs a message to the console telling us when a purchase failed.

In the Project panel, select the IAPDemo folder, then click the **Create** button and make a new C# script called **Purchaser** and paste-replace the entire contents with the following code:

C#

```
using System;
using System.Collections.Generic;
using UnityEngine;
using UnityEngine.Purchasing;

// Placing the Purchaser class in the CompleteProject namespace allows it to interact with ScoreManager,
// one of the existing Survival Shooter scripts.
namespace CompleteProject
{
    // Deriving the Purchaser class from IStoreListener enables it to receive messages from Unity Purchasing.
    public class Purchaser : MonoBehaviour, IStoreListener
    {
        private static IStoreController m_StoreController;          // The Unity Purchasing system.
        private static IExtensionProvider m_StoreExtensionProvider; // The store-specific Purchasing subsystems.

```



ADD NEW PRODUCT

What type of product would you like to add? *

Managed product | **Subscription**

Managed items that can be purchased only once per user account on Google Play. Google play permanently stores the transaction information for each item on a per-user basis. Learn more

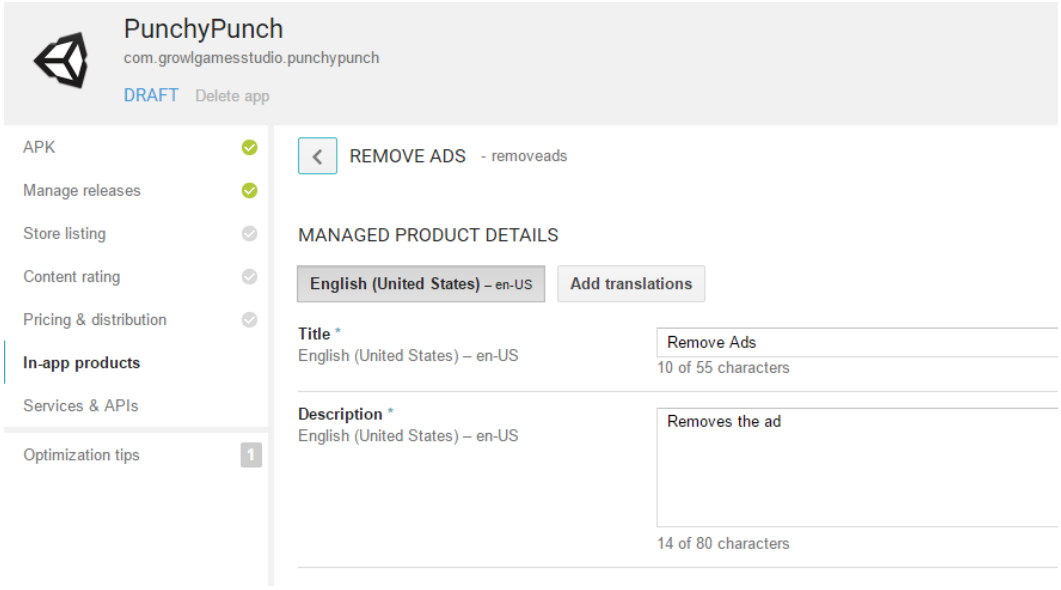
Product ID *

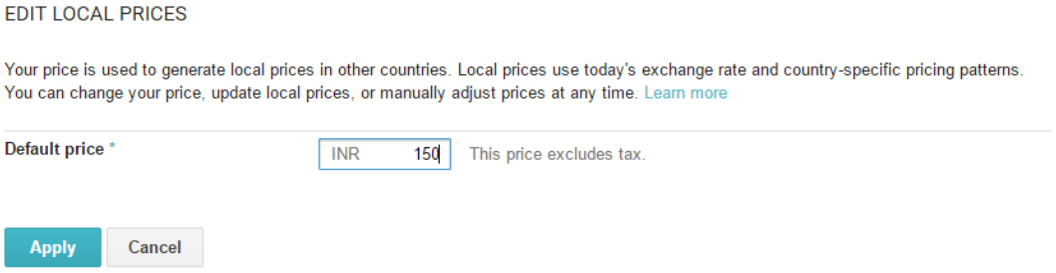
removeads

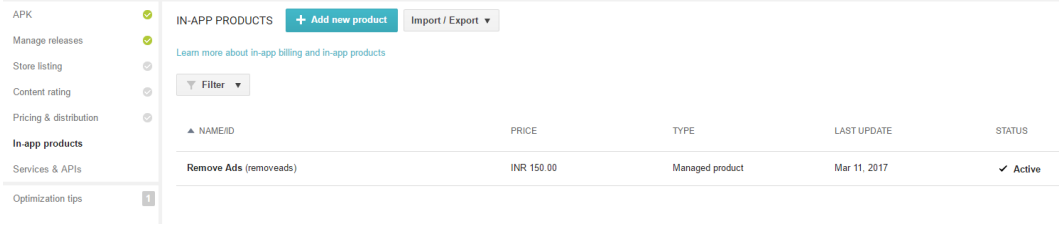
9 of 136 characters

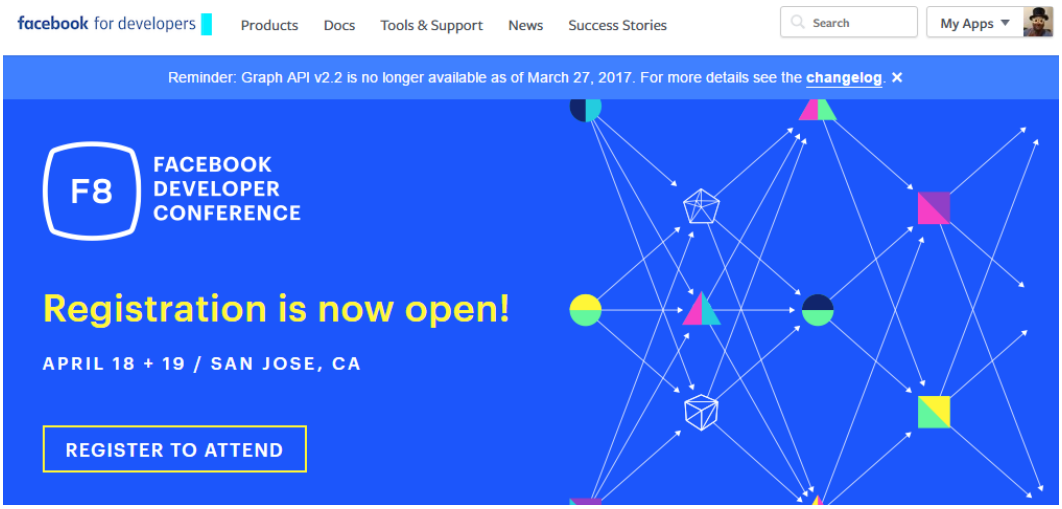
Please note that you can NOT change the product type and product ID later and that you cannot re-use the product ID again. Learn more

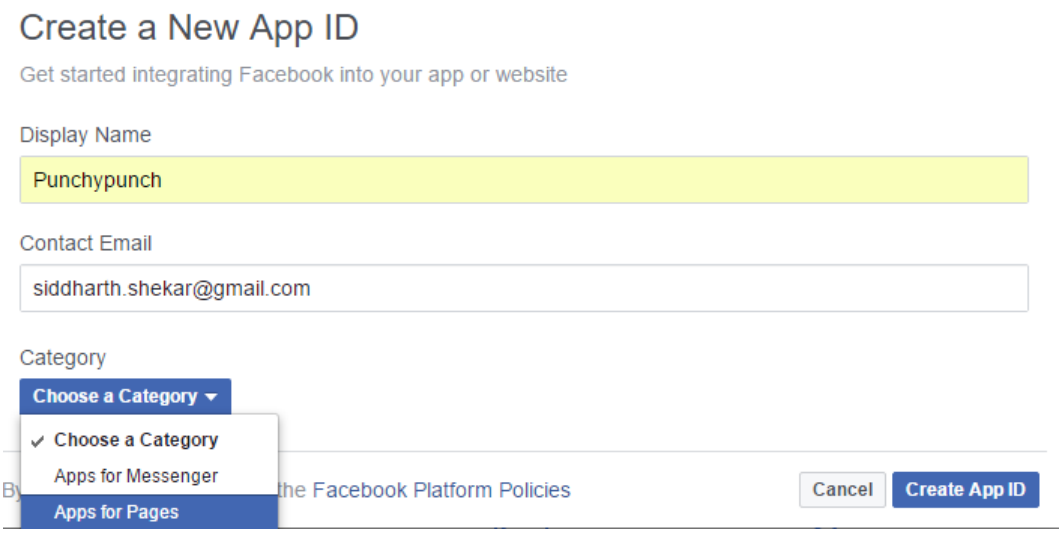
Continue **Cancel**

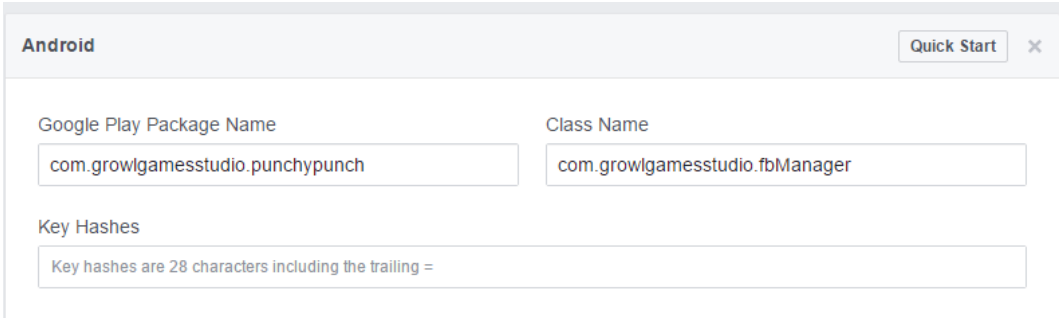

PunchyPunch
com.growlgamesstudio.punchypunch
DRAFT
Delete app
APK
Manage releases
Store listing
Content rating
Pricing & distribution
In-app products
Services & APIs
Optimization tips
1
REMOVE ADS - removeads
MANAGED PRODUCT DETAILS
English (United States) – en-US
Add translations
Title *
English (United States) – en-US
Remove Ads
10 of 55 characters
Description *
English (United States) – en-US
Removes the ad
14 of 80 characters

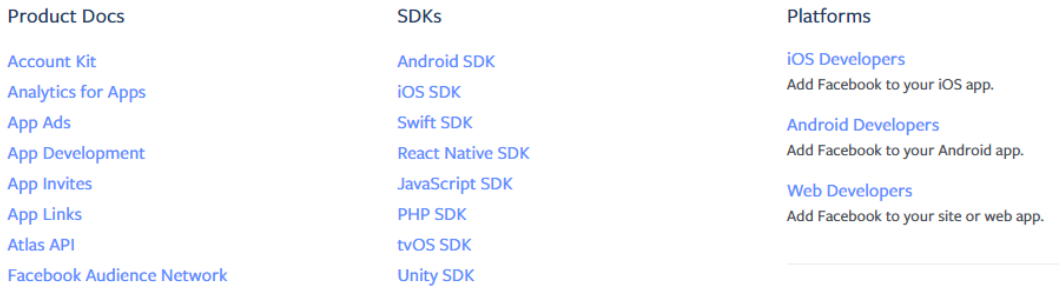

EDIT LOCAL PRICES
Your price is used to generate local prices in other countries. Local prices use today's exchange rate and country-specific pricing patterns. You can change your price, update local prices, or manually adjust prices at any time. Learn more
Default price *
INR 150
This price excludes tax.
Apply
Cancel

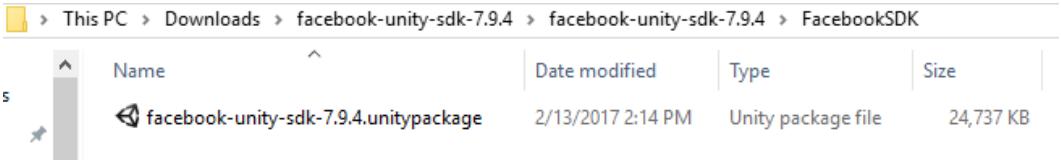

APK
Manage releases
Store listing
Content rating
Pricing & distribution
In-app products
Services & APIs
Optimization tips
1
IN-APP PRODUCTS
+ Add new product
Import / Export
Learn more about in-app billing and in-app products
Filter
NAME/ID
PRICE
TYPE
LAST UPDATE
STATUS
Remove Ads (removeads)
INR 150.00
Managed product
Mar 11, 2017
Active

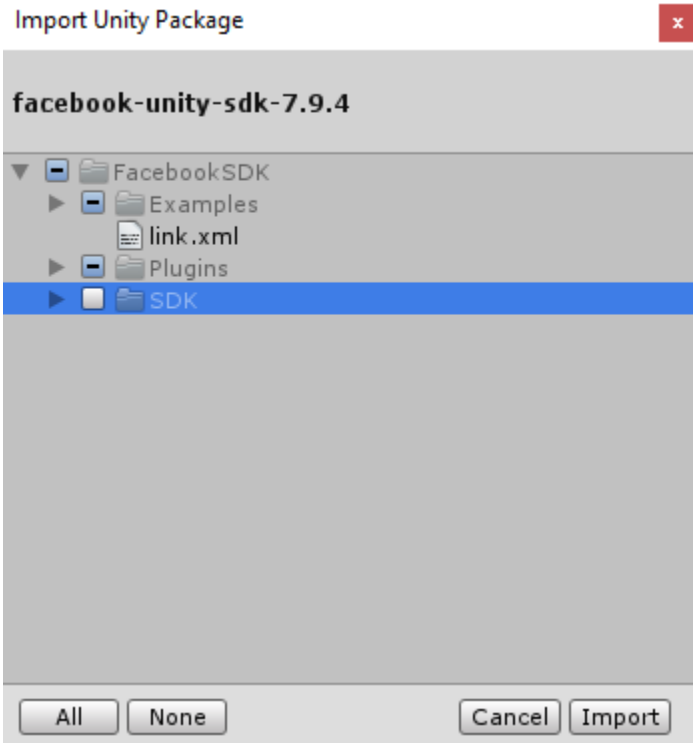

facebook for developers
Products
Docs
Tools & Support
News
Success Stories
Search
My Apps
Reminder: Graph API v2.2 is no longer available as of March 27, 2017. For more details see the changelog.
F8
FACEBOOK DEVELOPER CONFERENCE
Registration is now open!
APRIL 18 + 19 / SAN JOSE, CA
REGISTER TO ATTEND

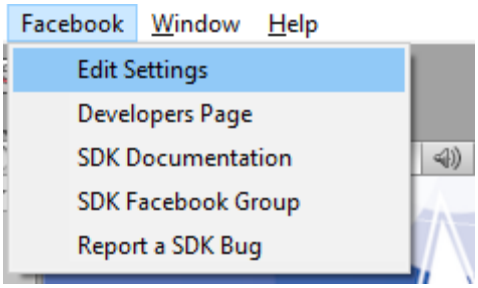

Create a New App ID
Get started integrating Facebook into your app or website
Display Name
Punchypunch
Contact Email
siddharth.shekar@gmail.com
Category
Choose a Category
Choose a Category
Apps for Messenger
Apps for Pages
the Facebook Platform Policies
Cancel
Create App ID

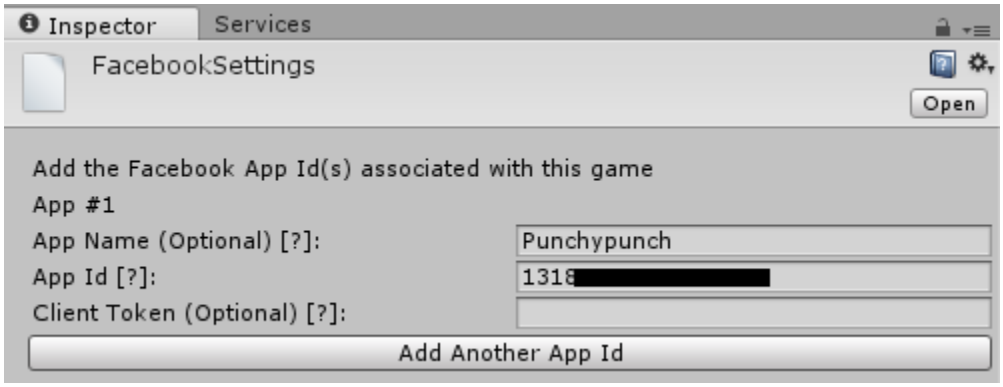

Android
Quick Start
Google Play Package Name
com.growlgamesstudio.punchypunch
Class Name
com.growlgamesstudio.fbManager
Key Hashes
Key hashes are 28 characters including the trailing =

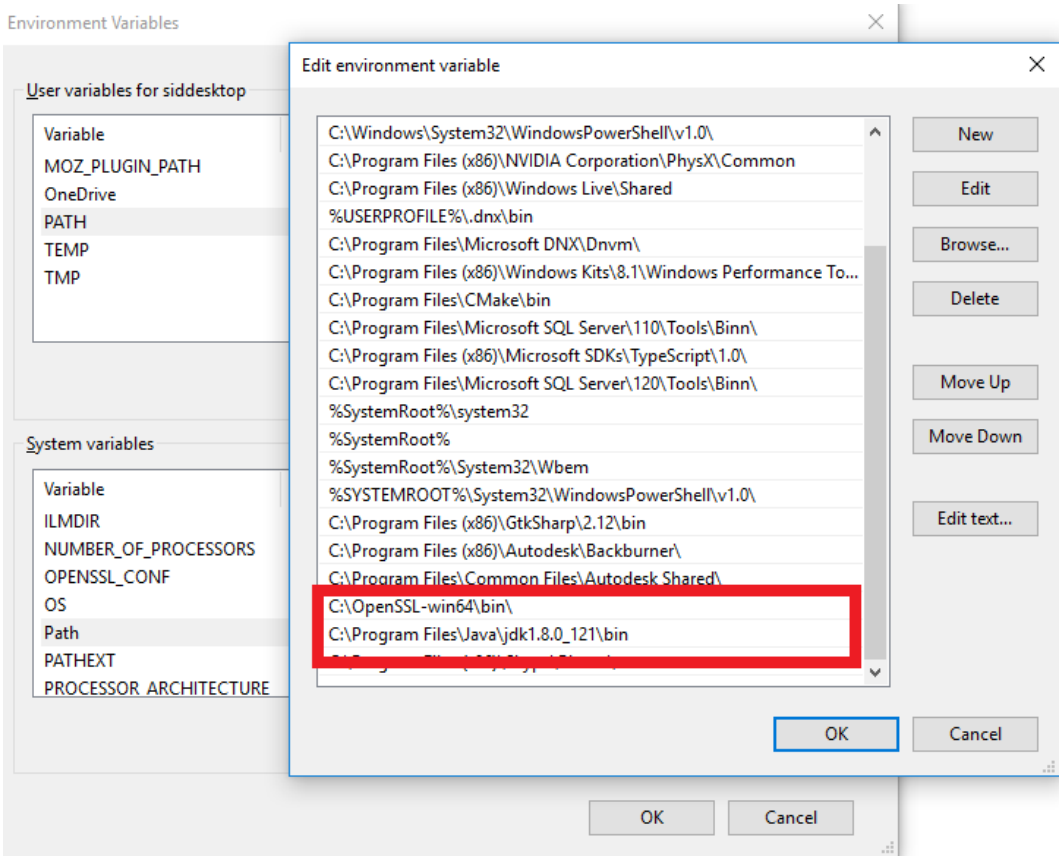

Product Docs
Account Kit
Analytics for Apps
App Ads
App Development
App Invites
App Links
Atlas API
Facebook Audience Network
SDKs
Android SDK
iOS SDK
Swift SDK
React Native SDK
JavaScript SDK
PHP SDK
tvOS SDK
Unity SDK
Platforms
iOS Developers
Add Facebook to your iOS app.
Android Developers
Add Facebook to your Android app.
Web Developers
Add Facebook to your site or web app.

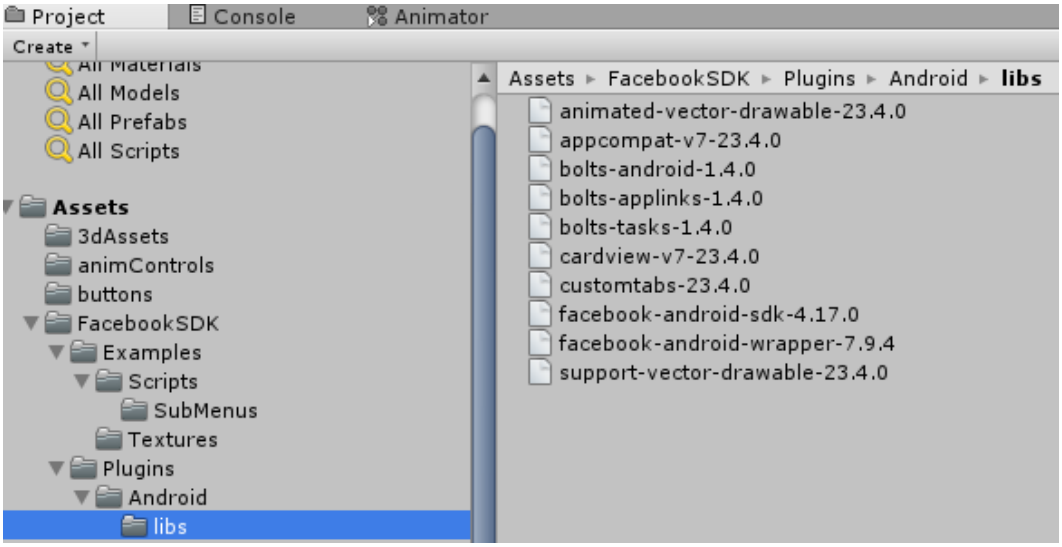

This PC
Downloads
facebook-unity-sdk-7.9.4
facebook-unity-sdk-7.9.4
FacebookSDK
Name
Date modified
Type
Size
facebook-unity-sdk-7.9.4.unitypackage
2/13/2017 2:14 PM
Unity package file
24,737 KB

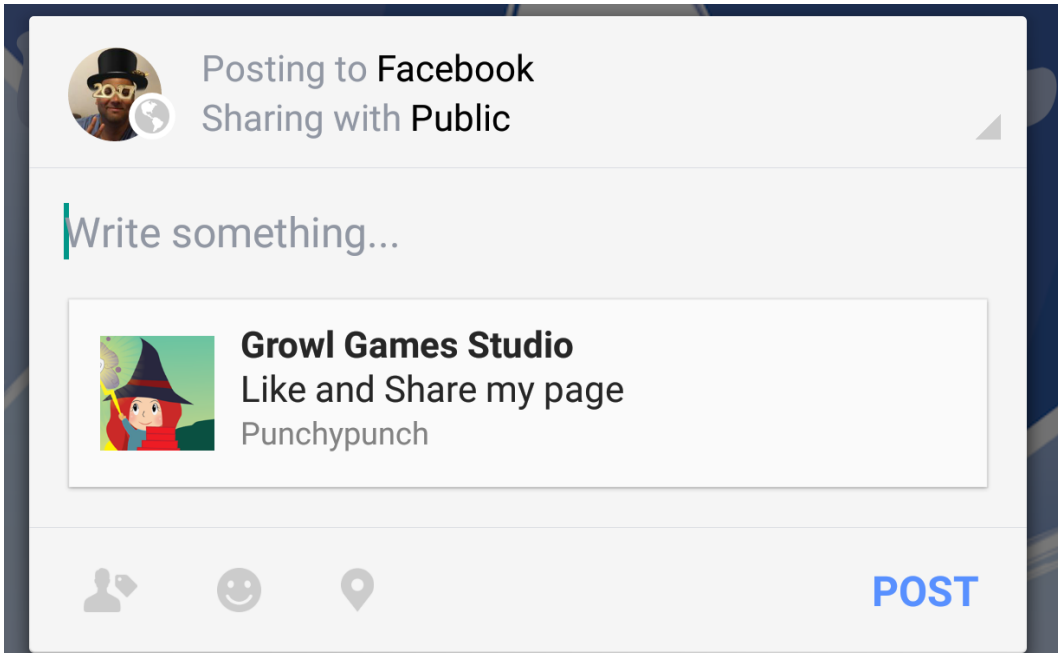

Import Unity Package
facebook-unity-sdk-7.9.4
FacebookSDK
Examples
link.xml
Plugins
SDK
All
None
Cancel
Import

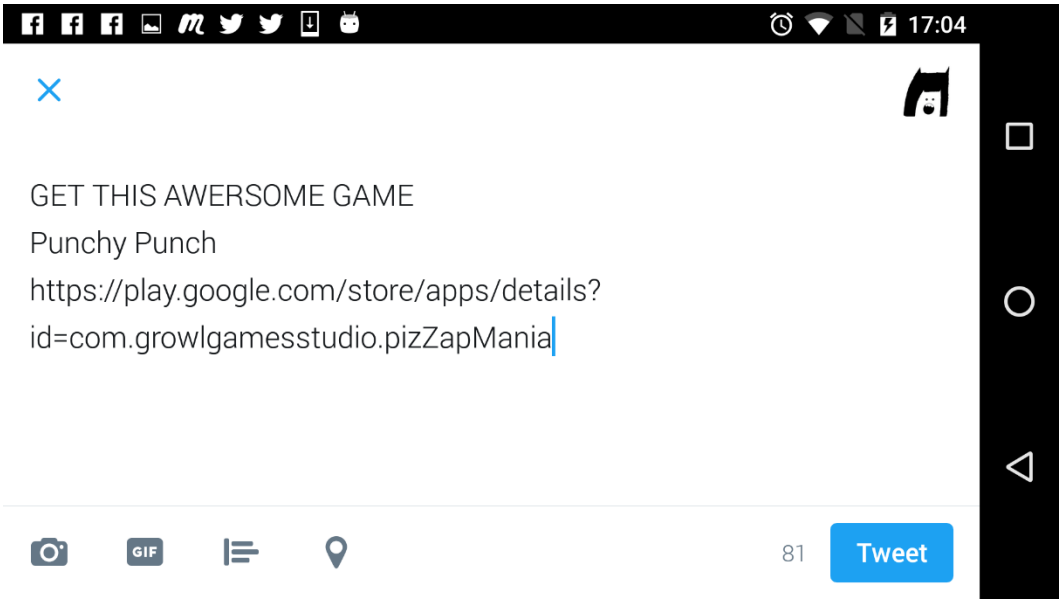

Facebook
Window
Help
Edit Settings
Developers Page
SDK Documentation
SDK Facebook Group
Report a SDK Bug


Inspector
Services
FacebookSettings
Open
Add the Facebook App Id(s) associated with this game
App #1
App Name (Optional) [?]:
Punchypunch
App Id [?]:
1318
Client Token (Optional) [?]:
Add Another App Id

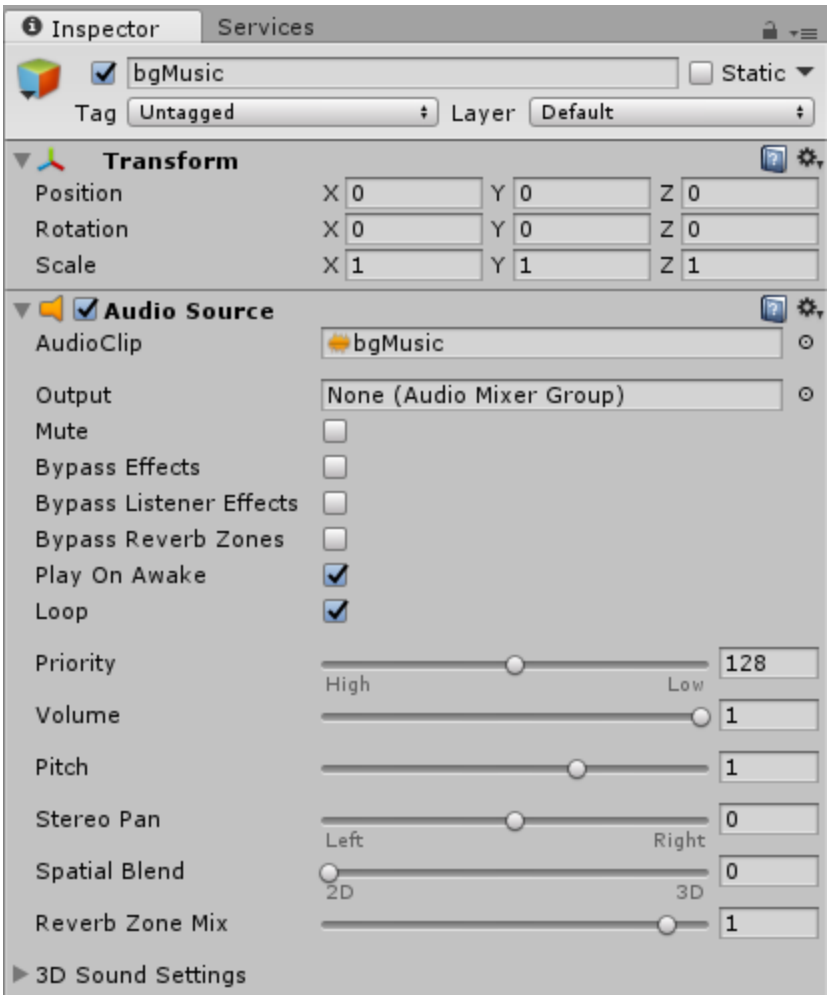

Environment Variables
User variables for siddesktop
Variable
MOZ_PLUGIN_PATH
OneDrive
PATH
TEMP
TMP
System variables
Variable
ILMDIR
NUMBER_OF_PROCESSORS
OPENSSL_CONF
OS
Path
PATHEXT
PROCESSOR_ARCHITECTURE
OK
Cancel
Edit environment variable
C:\Windows\System32\WindowsPowerShell\v1.0\
C:\Program Files (x86)\NVIDIA Corporation\PhysX\Common
C:\Program Files (x86)\Windows Live\Shared
%USERPROFILE%\.dnx\bin
C:\Program Files\Microsoft DNX\Dnvm\
C:\Program Files (x86)\Windows Kits\8.1\Windows Performance To...
C:\Program Files\CMake\bin
C:\Program Files\Microsoft SQL Server\110\Tools\Binn\
C:\Program Files (x86)\Microsoft SDKs\TypeScript\1.0\
C:\Program Files\Microsoft SQL Server\120\Tools\Binn\
%SystemRoot%\system32
%SystemRoot%
%SystemRoot%\System32\Wbem
%SYSTEMROOT%\System32\WindowsPowerShell\v1.0\
C:\Program Files (x86)\GtkSharp\2.12\bin
C:\Program Files (x86)\Autodesk\Backburner\
C:\Program Files\Common Files\Autodesk Shared\
C:\OpenSSL-win64\bin\
C:\Program Files\Java\jdk1.8.0_121\bin
New
Edit
Browse...
Delete
Move Up
Move Down
Edit text...
OK
Cancel

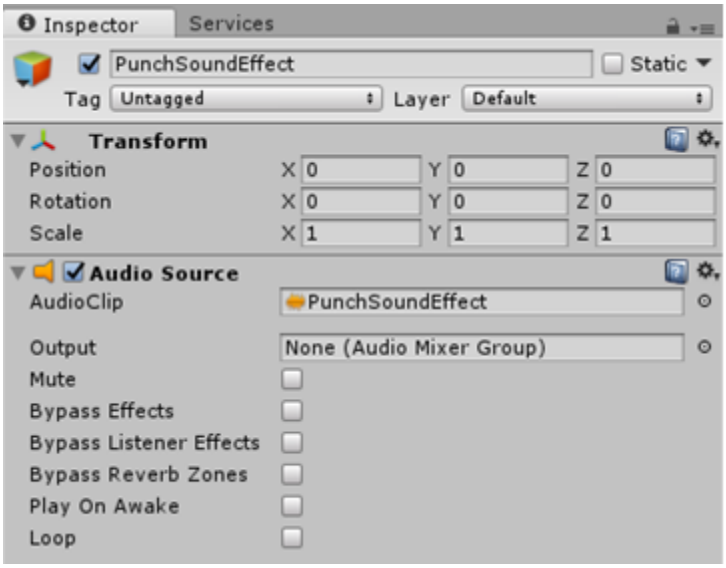

Project
Console
Animator
Create
All Models
All Prefabs
All Scripts
Assets
3dAssets
animControls
buttons
FacebookSDK
Examples
Scripts
SubMenus
Textures
Plugins
Android
libs
Assets ▸ FacebookSDK ▸ Plugins ▸ Android ▸ libs
animated-vector-drawable-23.4.0
appcompat-v7-23.4.0
bolts-android-1.4.0
bolts-applinks-1.4.0
bolts-tasks-1.4.0
cardview-v7-23.4.0
customtabs-23.4.0
facebook-android-sdk-4.17.0
facebook-android-wrapper-7.9.4
support-vector-drawable-23.4.0

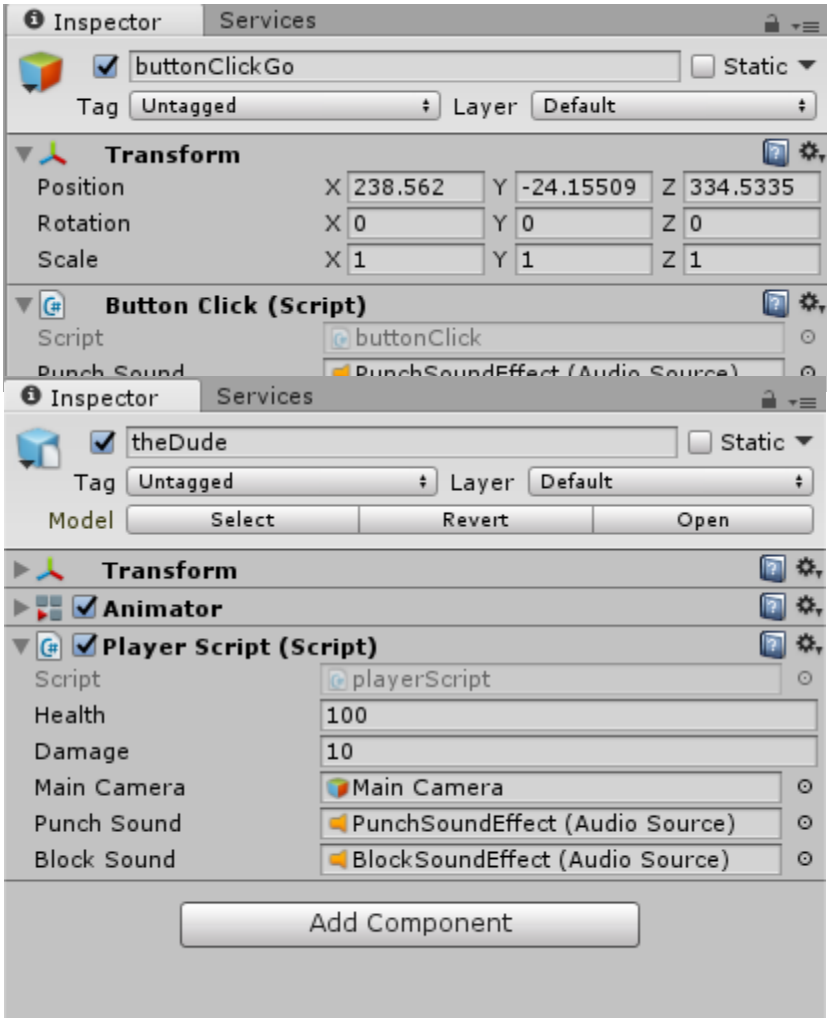

Posting to Facebook
Sharing with Public
Write something...
Growl Games Studio
Like and Share my page
Punchypunch
POST

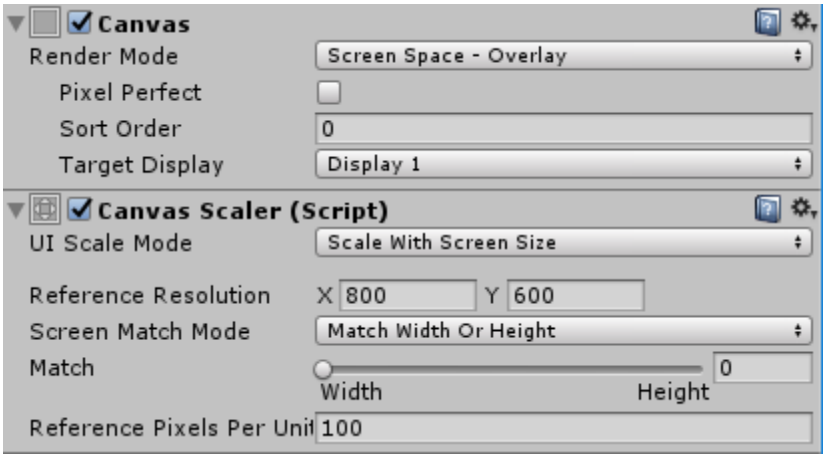

17:04
GET THIS AWERSOME GAME
Punchy Punch
https://play.google.com/store/apps/details?
id=com.growlgamesstudio.pizZapMania
GIF
81
Tweet

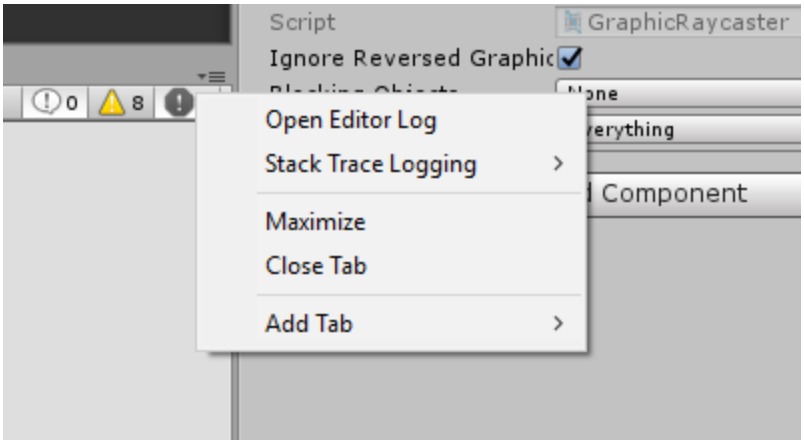
Chapter 8: Sound, Finishing Touches, and Publishing




Inspector
Services
PunchSoundEffect
Static
Tag
Untagged
Layer
Default
Transform
Position
X 0
Y 0
Z 0
Rotation
X 0
Y 0
Z 0
Scale
X 1
Y 1
Z 1
Audio Source
AudioClip
PunchSoundEffect
Output
None (Audio Mixer Group)
Mute
Bypass Effects
Bypass Listener Effects
Bypass Reverb Zones
Play On Awake
Loop


Inspector
Services
buttonClickGo
Static
Tag
Untagged
Layer
Default
Transform
Position
X 238.562
Y -24.15509
Z 334.5335
Rotation
X 0
Y 0
Z 0
Scale
X 1
Y 1
Z 1
Button Click (Script)
Script
buttonClick
Inspector
Services
theDude
Static
Tag
Untagged
Layer
Default
Model
Select
Revert
Open
Transform
Animator
Player Script (Script)
Script
playerScript
Health
100
Damage
10
Main Camera
Main Camera
Punch Sound
PunchSoundEffect (Audio Source)
Block Sound
BlockSoundEffect (Audio Source)
Add Component


Canvas
Render Mode
Screen Space - Overlay
Pixel Perfect
Sort Order
0
Target Display
Display 1
Canvas Scaler (Script)
UI Scale Mode
Scale With Screen Size
Reference Resolution
X 800
Y 600
Screen Match Mode
Match Width Or Height
Match
0
Width
Height
Reference Pixels Per Unit
100


Script
GraphicRaycaster
Ignore Reversed Graphic
0
8
Open Editor Log
Stack Trace Logging
Maximize
Close Tab
Add Tab
Component

Editor.log - Notepad

File Edit Format View Help

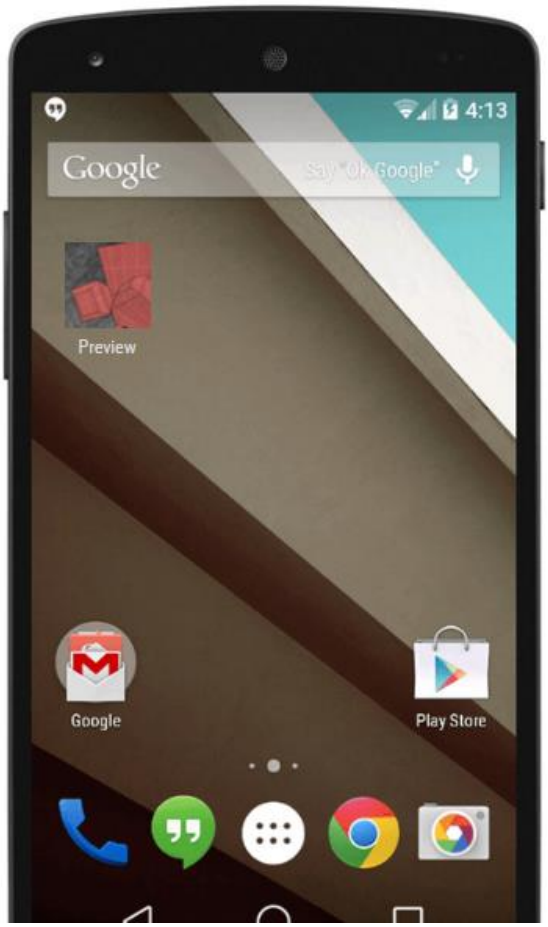
```
Unloading 117 unused Assets to reduce memory usage. Loaded Objects now: 3074.
Total: 20.783979 ms (FindLiveObjects: 0.214747 ms CreateObjectMapping: 0.029842 ms MarkObjects: 7.414929 ms  DeleteObjects:

WARNING: Shader Unsupported: 'VR/SpatialMapping/Wireframe' - Pass '' has no vertex shader
WARNING: Shader Unsupported: 'VR/SpatialMapping/Wireframe' - Setting to default shader.
Compressed shader 'Standard' on gles from 0.75MB to 0.06MB
Compressed shader 'Standard' on gles3 from 1.26MB to 0.08MB

Textures      6.8 mb     52.1%
Meshes        62.2 kb    0.5%
Animations    45.5 kb    0.3%
Sounds        397.3 kb   3.0%
Shaders       233.0 kb   1.8%
Other Assets  97.5 kb    0.7%
Levels        175.5 kb   1.3%
Scripts       1.3 mb     9.6%
Included DLLs 3.9 mb     30.3%
File headers  38.0 kb    0.3%
Complete size 13.0 mb    100.0%

Used Assets and files from the Resources folder, sorted by uncompressed size:
 2.6 mb  20.3% Assets/images/menuImage.jpg
 1.5 mb  11.3% Assets/images/ground.jpg
 1.5 mb  11.3% Assets/images/wall.jpg
 382.5 kb        2.9% Assets/Audio/bgMusic.mp3
 294.3 kb        2.2% Resources/unity_builtin_extra
 252.6 kb        1.9% Assets/buttons/homeBtn2.png
 252.6 kb        1.9% Assets/buttons/resetBtn2.png
 252.6 kb        1.9% Assets/buttons/pauseBtnOFF.png
 111.2 kb        0.8% Assets/3dAssets/theDude.FBX
 88.6 kb         0.7% Assets/buttons/noads.png
 69.5 kb         0.5% Assets/buttons/achBtn.png
 64.6 kb         0.5% Assets/buttons/twitter.png
 58.7 kb         0.4% Assets/buttons/playBtn_pressed-ipad.png
 58.7 kb         0.4% Assets/buttons/playBtn_normal-ipad.png
 39.4 kb         0.3% Assets/buttons/facebook.png
 29.0 kb         0.2% Assets/fonts/duncecapbb_reg.ttf
```

Enter email to subscribe and download

☑ Include icons for iWatch, uncheck only if you don't need it

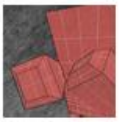
☑ Subscribe to our bi-weekly newsletter for tech articles we read

iOS | Android



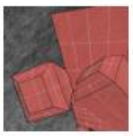
1x

MDPI



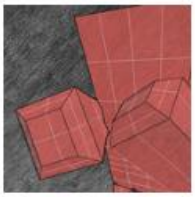
1.5x

HDPI



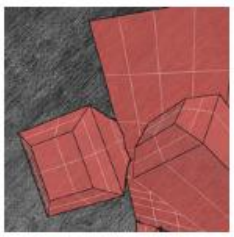
2x

XHDPI



3x

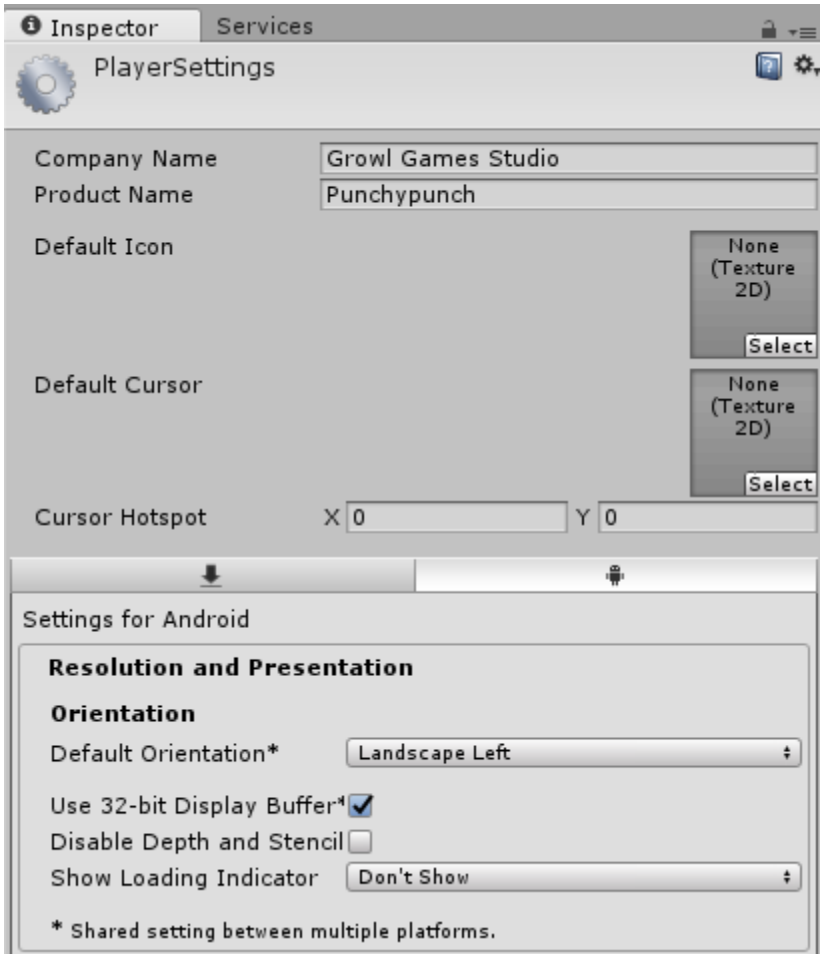
XXHDPI

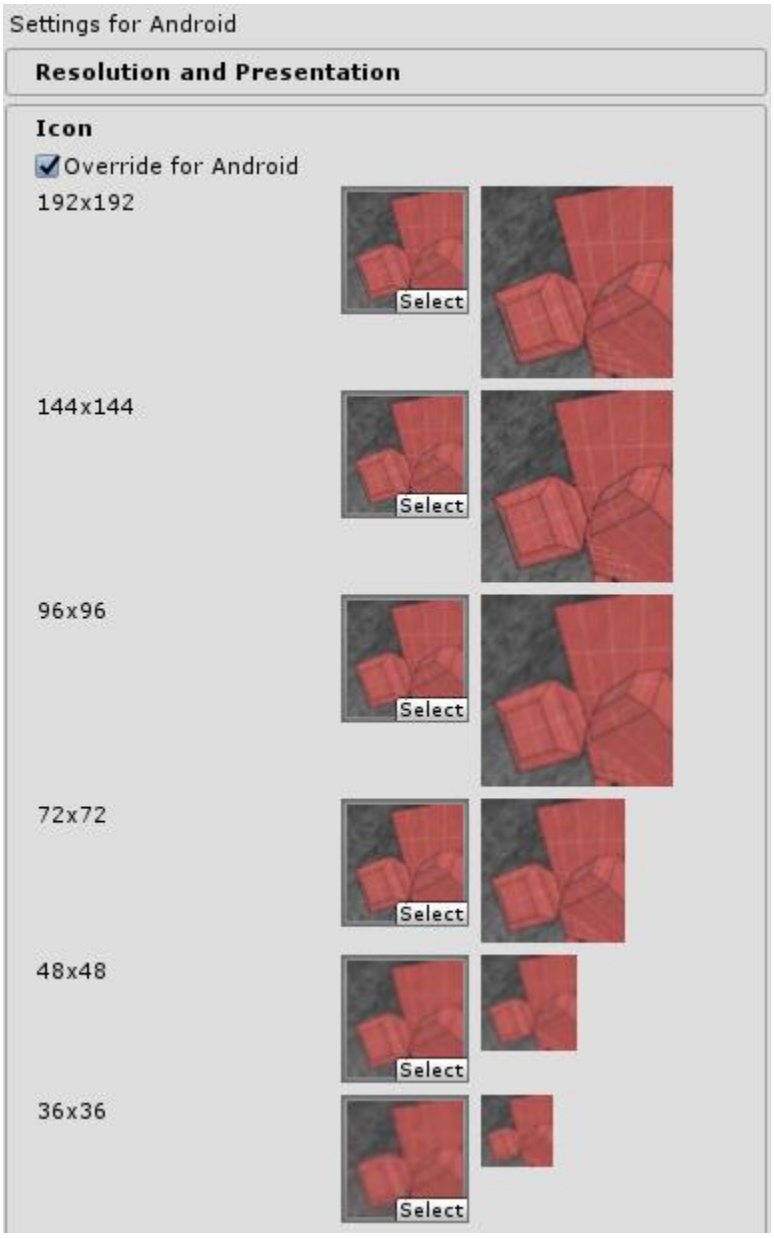


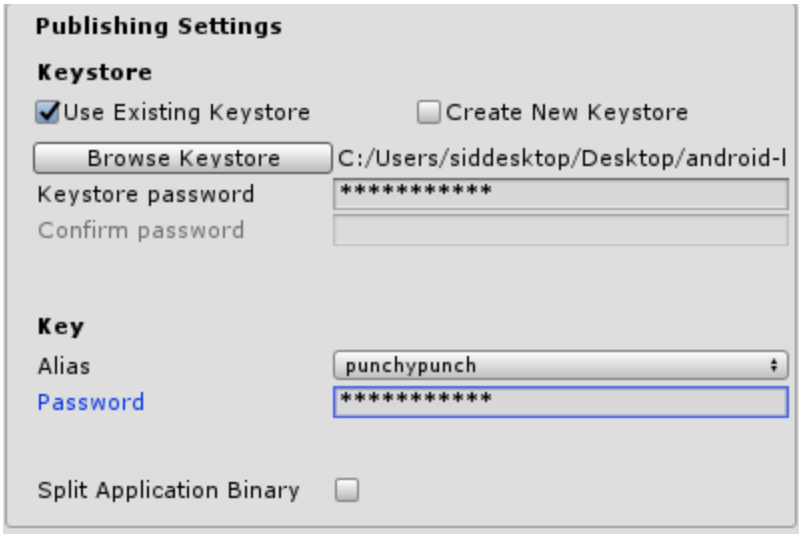
4x

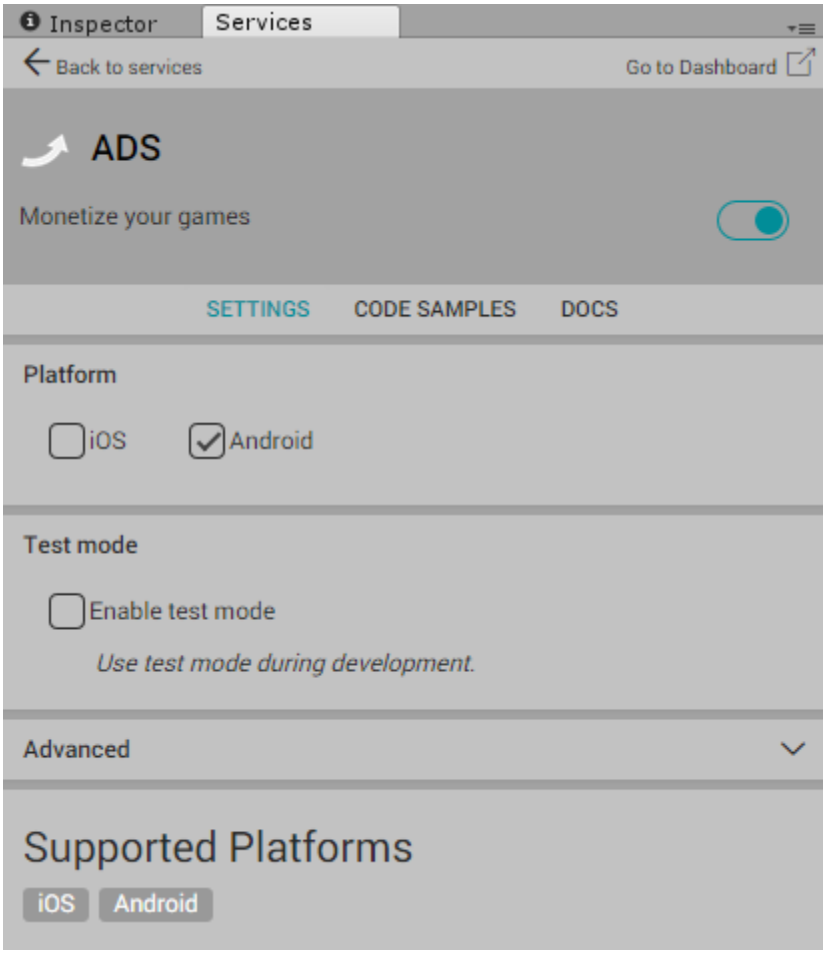
XXXHDPI

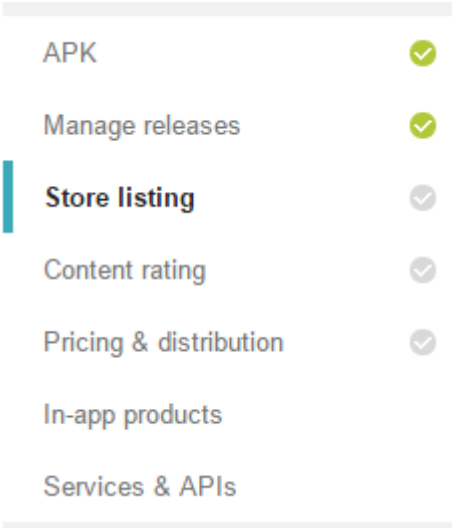
and Google Play icon


Inspector
Services
PlayerSettings
Company Name
Growl Games Studio
Product Name
Punchypunch
Default Icon
None (Texture 2D)
Select
Default Cursor
None (Texture 2D)
Select
Cursor Hotspot
X 0
Y 0
Settings for Android
Resolution and Presentation
Orientation
Default Orientation*
Landscape Left
Use 32-bit Display Buffer*
Disable Depth and Stencil
Show Loading Indicator
Don't Show
* Shared setting between multiple platforms.


Settings for Android
Resolution and Presentation
Icon
Override for Android
192x192
Select
144x144
Select
96x96
Select
72x72
Select
48x48
Select
36x36
Select


Publishing Settings
Keystore
Use Existing Keystore
Create New Keystore
Browse Keystore
C:/Users/siddesktop/Desktop/android-l
Keystore password
****
Confirm password
Key
Alias
punchypunch
Password
****
Split Application Binary


Inspector
Services
Back to services
Go to Dashboard
ADS
Monetize your games
SETTINGS
CODE SAMPLES
DOCS
Platform
iOS
Android
Test mode
Enable test mode
Use test mode during development.
Advanced
Supported Platforms
iOS
Android



STORE LISTING

PRODUCT DETAILS

English (United States) – en-US

Title*
English (United States) – en-US

Punchypunch

11 of 30 characters

Short description*
English (United States) – en-US

Punchy Punch is an action game developed for the book Mastering Android Game Development using Unity

100 of 80 characters

Full description *
English (United States) – en-US

Punchy Punch is an action game developed for the book Mastering Android Game Development using Unity. (https://www.packtpub.com/game-development/mastering-android-game-development-unity)

Features:
=======
Develop your own Jetpack Joyride clone game
Explore the advanced features of Unity 5 by building your own Action Fighting game
Develop remarkable Graphical User Interfaces (GUIs) with Unity's new uGUI system
Enhance your game by adding stunning particle systems and complex animations
Build pleasing virtual worlds with special effects, lights, sky cube maps, and cameras
Make your game more realistic by providing music and sound effects
Debug and deploy your games on different Android devices

700 of 4000 characters

Please check out our Metadata policy to avoid some common violations related to app metadata. Also, please make sure to review all the other program policies before you submit your apps.

If your app or store listing is eligible for advance notice to the Google Play App Review team, contact us prior to publishing.

GRAPHIC ASSETS

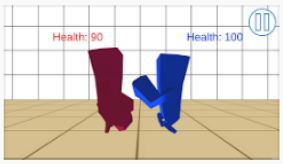
If you haven't added localized graphics for each language, graphics for your default language will be used.
Learn more about graphic assets.

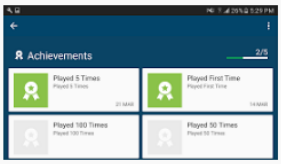
Screenshots *
Default – English (United States) – en-US
JPEG or 24-bit PNG (no alpha). Min length for any side: 320px. Max length for any side: 3840px.
At least **2 screenshots are required** overall. **Max 8 screenshots per type**. Drag to reorder or to move between types.

For your app to be showcased in the 'Designed for tablets' list in the Play Store, you need to upload at least one 7-inch and one 10-inch screenshot. If you previously uploaded screenshots, make sure to move them into the right area below.
Learn how tablet screenshots will be displayed in the store listing.

Please check out our Impersonation and Intellectual Property policy to avoid common violations.

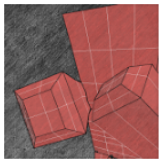
Phone | Tablet | Android TV | Android Wear





+
Add screenshot
Drop image here

Hi-res icon *
Default – English (United States) – en-US
512 x 512
32-bit PNG (with alpha)



Feature Graphic *
Default – English (United States) – en-US
1024 w x 500 h
JPG or **24-bit PNG** (no alpha)

Promo Graphic
Default – English (United States) – en-US
180 w x 120 h
JPG or **24-bit PNG** (no alpha)

+
Add promo graphic
Drop image here

CATEGORIZATION

Application type *: Games

Category *: Action

Content rating *: You need to fill a rating questionnaire and apply a content rating.

CONTACT DETAILS

Website: http://www.growlgamesstudio.com

Email *: ggdevstudios@gmail.com

Please provide an email address where you may be contacted. This address will be publicly displayed with your app.

Phone:

PRIVACY POLICY *

If you wish to provide a privacy policy URL for this application, please enter it below. Also, please check out our User Data policy to avoid common violations.

Privacy Policy: http://...

☑ Not submitting a privacy policy URL at this time. Learn more

CONTENT RATING

Please complete the questionnaire so that we can calculate your app rating.

GAME
App is a game. Edit Category

VIOLENCE

Does the game contain inferences of, references to, or depictions of violence?
Please note that this question does not refer to user-generated content.

○ Yes ○ No

FEAR

SEXUALITY

GAMBLING

LANGUAGE

CONTROLLED SUBSTANCE

CRUDE HUMOR

MISCELLANEOUS

MISCELLANEOUS

Close ✓

Does the game natively allow users to interact or exchange content with other users through voice communication, text, or sharing images or audio? Learn more

○ Yes ◉ No

Does the game share user-provided personal information with third parties? Learn more

○ Yes ◉ No

Does the game share the user's current physical location to other users? Learn more

○ Yes ◉ No

Does the game allow users to purchase digital goods? Learn more

◉ Yes ○ No

Does the game contain any Nazi symbols, references, or propaganda? Learn more

○ Yes ◉ No

Does the game contain detailed descriptions of techniques that could be used in criminal offenses? Learn more

○ Yes ◉ No

Does the game advocate committing acts of terrorism? Learn more

○ Yes ◉ No

Calculate rating | Save questionnaire

IARC

CONTENT RATING

GAME
App is a game.

QUESTIONNAIRE SUMMARY

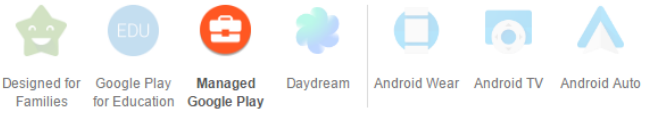
MISCELLANEOUS

- Can purchase digital goods

CALCULATED RATING Learn more

Rating System	Rating Category	Descriptors
Australian Classification Board (ACB) Australia	 General	General
Classificação Indicativa (ClassInd) Brazil	 All ages	
Entertainment Software Rating Board (ESRB) North America	 Everyone	
Pan-European Game Information (PEGI) Europe	 PEGI 3	
Unterhaltungssoftware Selbstkontrolle (USK) Germany	 USK: All ages	
IARC Generic Rest of world	 Rated for 3+	
Google Play South Korea A game unsuitable for minors younger than 18 may be removed from Google Play in Korea unless pre-rated by GRAC. Please see here for more detail.	 Rated for 3+	

PRICING & DISTRIBUTION



This application is

Paid | Free

Setting the price to 'Free' is permanent. You cannot change it back to 'Paid' again after publishing. Learn more

Countries *

Available in **136 countries**.

Manage countries

	UNAVAILABLE	AVAILABLE	
Albania	○	◉	
Algeria	○	◉	
Angola	○	◉	
Antigua and Barbuda	○	◉	
Argentina	○	◉	
Armenia	○	◉	
Aruba	○	◉	
Australia	○	◉	Show options
Austria	○	◉	Show options
Azerbaijan	○	◉	
Bahamas	○	◉	
Bahrain	○	◉	Show options
Bangladesh	○	◉	
Belarus	○	◉	

If you target additional countries with local prices, prices for your in-app products will be automatically generated, based on today's exchange rate.

CONTAINS ADS *

Does your application have ads? Also, please check out our Ads policy to avoid common violations.
If yes, users will be able to see the **'ads'** label on your application in the Play Store. Learn more

- ◉ Yes, it has ads
- ○ No, it has no ads

CONSENT

Marketing opt-out

☑ Do not promote my application except in Google Play and in any Google-owned online or mobile properties. I understand that any changes to this preference may take sixty days to take effect.

Content guidelines *

☑ This application meets Android Content Guidelines.

Please check out these tips on how to create policy compliant app descriptions to avoid some common reasons for app suspension. If your app or store listing is eligible for advance notice to the Google Play App Review team, contact us prior to publishing.

US export laws *

☑ I acknowledge that my software application may be subject to United States export laws, regardless of my location or nationality. I agree that I have complied with all such laws, including any requirements for software with encryption functions. I hereby certify that my application is authorized for export from the United States under these laws. Learn more

GAME DETAILS

Save

English (United States) – en-US | Add translations

Fields marked with * need to be filled for saving. All fields need to be filled for publishing.

Display name *
English (United States) – en-US

PunchyPunch
11 of 30 characters

Description
English (United States) – en-US

PunchyPunchy
12 of 4000 characters

Category

Action

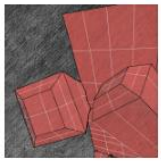
Saved Games

ON | OFF

GRAPHIC ASSETS

Please add all the graphic assets described below or use graphic assets from one of your Android apps.
Note: Games with blank or single color graphic assets will not be featured on the Google Play Games app.

High-res icon
512 × 512
32-bit PNG (with alpha)



Feature Graphic
1024 w × 500 h
JPG or 24-bit PNG (no alpha)

PLAYED FIRST TIME - CgkI2_PX0NcOEAIQAQ Saved

English (United States) – en-US

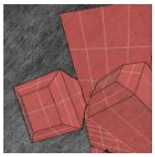
Name
English (United States) – en-US

Played First Time
17 of 100 characters

Description
English (United States) – en-US
(optional for testing)

Played First Time
17 of 500 characters

Icon
512 × 512
png or jpg
(optional for testing)



Incremental achievements

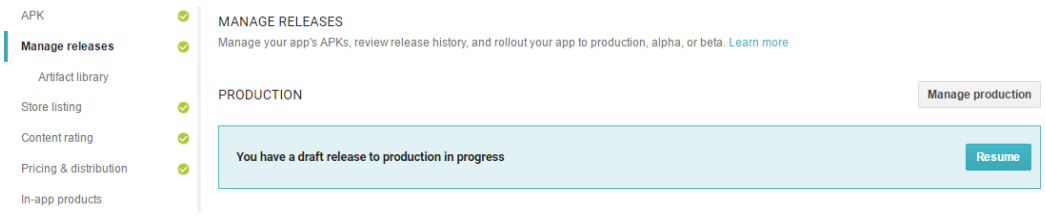
Initial state
Revealed

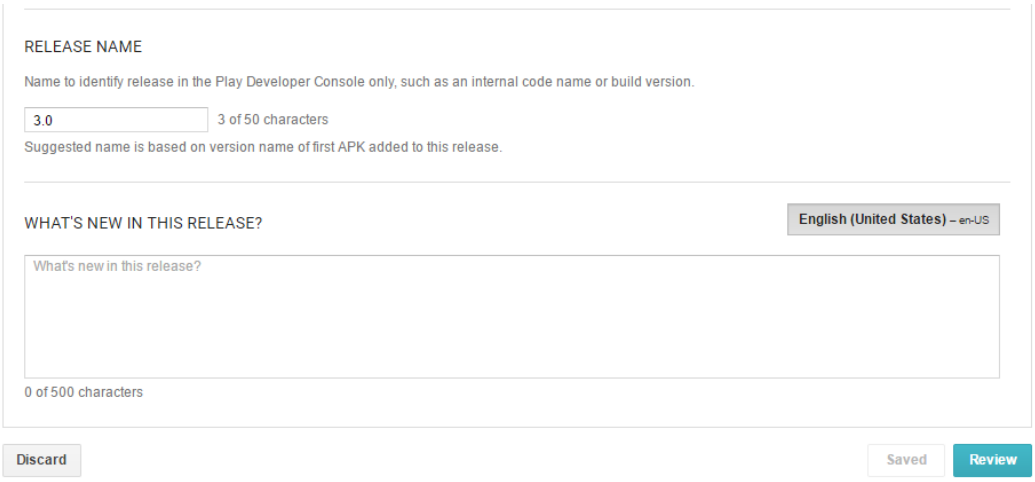
Points
5 25 of 1,000 achievement points distributed
The point value needs to be between 5 and 200 and needs to be a multiple of 5.

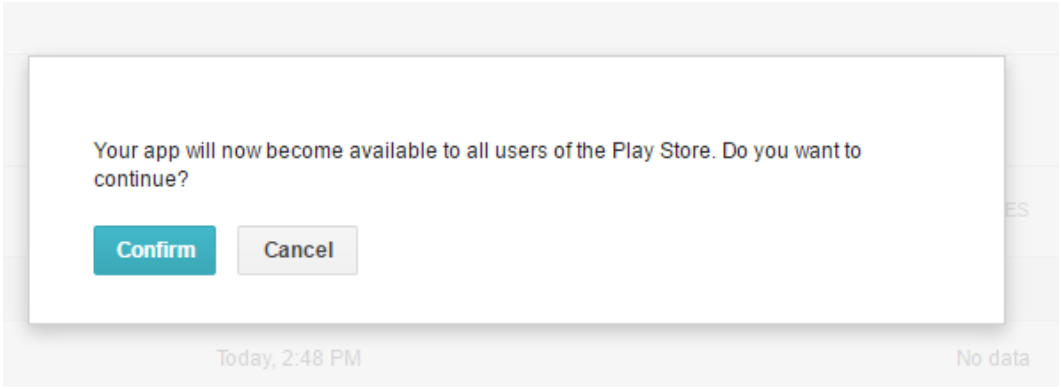
List order
1 of 5

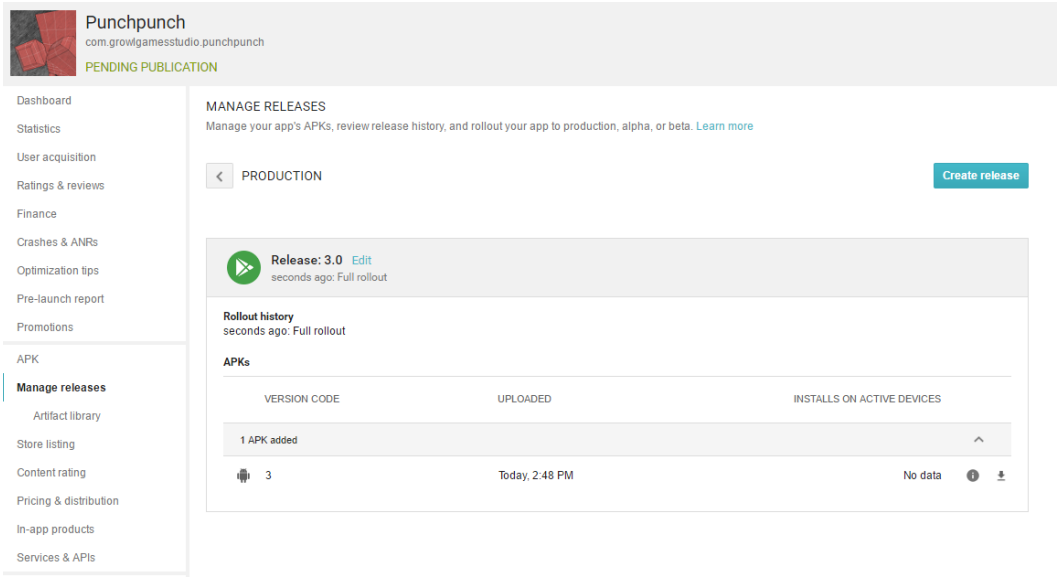
ACHIEVEMENTS Add new achievement

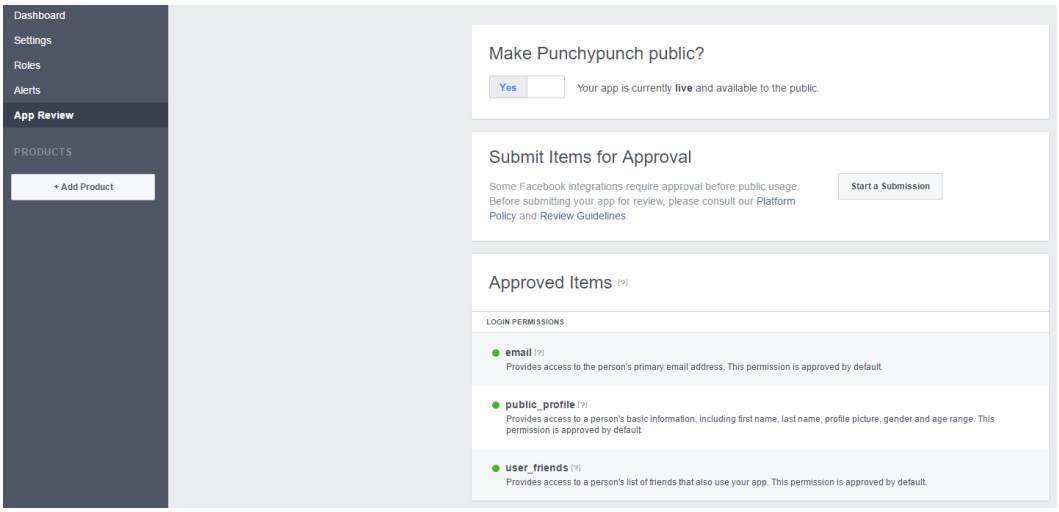
#	NAME	ID	POINTS	UNLOCKED % TOTAL # / TIME	STATUS
1	Played First Time	CgkI84nj9JkEEAIQAQ	5	—	✓ Published
2	Played 5 Times	CgkI84nj9JkEEAIQAg	5	—	✓ Published
3	Played 100 Times	CgkI84nj9JkEEAIQAw	5	—	✓ Published
4	Played 50 Times	CgkI84nj9JkEEAIQBA	5	—	✓ Published
5	Played 1000 Times	CgkI84nj9JkEEAIQBQ	5	—	✓ Published
		Get resources	Total points: 25		


APK
Manage releases
Artifact library
Store listing
Content rating
Pricing & distribution
In-app products
MANAGE RELEASES
Manage your app's APKs, review release history, and rollout your app to production, alpha, or beta. Learn more
PRODUCTION
Manage production
You have a draft release to production in progress
Resume


RELEASE NAME
Name to identify release in the Play Developer Console only, such as an internal code name or build version.
3.0
3 of 50 characters
Suggested name is based on version name of first APK added to this release.
WHAT'S NEW IN THIS RELEASE?
English (United States) – en-US
What's new in this release?
0 of 500 characters
Discard
Saved
Review


Your app will now become available to all users of the Play Store. Do you want to continue?
Confirm
Cancel
Today, 2:48 PM
No data


Punchpunch
com.growlgamesstudio.punchpunch
PENDING PUBLICATION
Dashboard
Statistics
User acquisition
Ratings & reviews
Finance
Crashes & ANRs
Optimization tips
Pre-launch report
Promotions
APK
Manage releases
Artifact library
Store listing
Content rating
Pricing & distribution
In-app products
Services & APIs
MANAGE RELEASES
Manage your app's APKs, review release history, and rollout your app to production, alpha, or beta. Learn more
PRODUCTION
Create release
Release: 3.0 Edit
seconds ago: Full rollout
Rollout history
seconds ago: Full rollout
APKs
VERSION CODE
UPLOADED
INSTALLS ON ACTIVE DEVICES
1 APK added
3
Today, 2:48 PM
No data


Dashboard
Settings
Roles
Alerts
App Review
PRODUCTS
+ Add Product
Make Punchypunch public?
Yes
Your app is currently live and available to the public.
Submit Items for Approval
Some Facebook integrations require approval before public usage. Before submitting your app for review, please consult our Platform Policy and Review Guidelines.
Start a Submission
Approved Items [?]
LOGIN PERMISSIONS
email [?]
Provides access to the person's primary email address. This permission is approved by default.
public_profile [?]
Provides access to a person's basic information, including first name, last name, profile picture, gender and age range. This permission is approved by default.
user_friends [?]
Provides access to a person's list of friends that also use your app. This permission is approved by default.